



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 11:04 PM BST

PDB ID : 4V9P
Title : Control of ribosomal subunit rotation by elongation factor G
Authors : Pulk, A.; Cate, J.H.D.
Deposited on : 2013-05-03
Resolution : 2.90 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

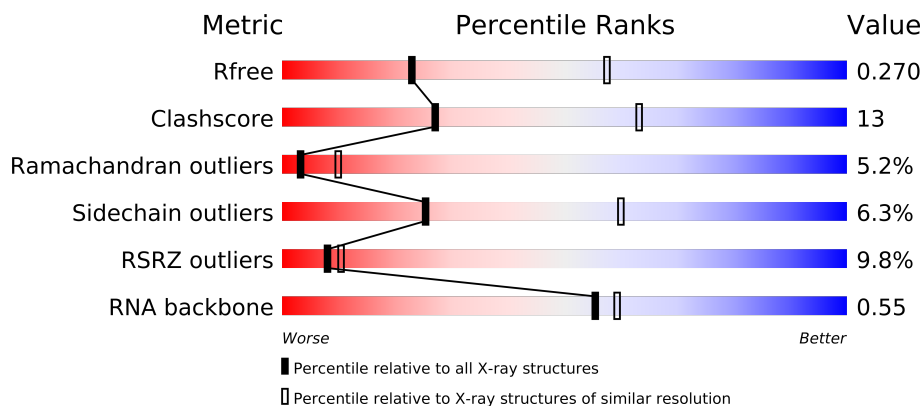
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1323
EDS : stable23397
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23397

1 Overall quality at a glance

The reported resolution of this entry is 2.90 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1053 (2.90-2.90)
Clashscore	79885	1326 (2.90-2.90)
Ramachandran outliers	78287	1290 (2.90-2.90)
Sidechain outliers	78261	1292 (2.90-2.90)
RSRZ outliers	66119	1054 (2.90-2.90)
RNA backbone	1838	1055 (3.40-2.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AA	2904	
1	CA	2904	
1	EA	2904	
1	GA	2904	
2	AB	120	
2	CB	120	
2	EB	120	
2	GB	120	
3	AC	273	
3	CC	273	
3	EC	273	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	GC	273	
4	AD	209	
4	CD	209	
4	ED	209	
4	GD	209	
5	AE	201	
5	CE	201	
5	EE	201	
5	GE	201	
6	AF	179	
6	CF	179	
6	EF	179	
6	GF	179	
7	AG	177	
7	CG	177	
7	EG	177	
7	GG	177	
8	AH	50	
8	CH	50	
8	EH	50	
8	GH	50	
9	AI	142	
9	CI	142	
9	EI	142	
9	GI	142	
10	AJ	142	
10	CJ	142	
10	EJ	142	
10	GJ	142	
11	AK	123	
11	CK	123	
11	EK	123	
11	GK	123	
12	AL	144	
12	CL	144	
12	EL	144	
12	GL	144	
13	AM	136	
13	CM	136	
13	EM	136	
13	GM	136	
14	AN	127	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
14	CN	127	
14	EN	127	
14	GN	127	
15	AO	117	
15	CO	117	
15	EO	117	
15	GO	117	
16	AP	115	
16	CP	115	
16	EP	115	
16	GP	115	
17	AQ	118	
17	CQ	118	
17	EQ	118	
17	GQ	118	
18	AR	103	
18	CR	103	
18	ER	103	
18	GR	103	
19	AS	110	
19	CS	110	
19	ES	110	
19	GS	110	
20	AT	100	
20	CT	100	
20	ET	100	
20	GT	100	
21	AU	104	
21	CU	104	
21	EU	104	
21	GU	104	
22	AV	94	
22	CV	94	
22	EV	94	
22	GV	94	
23	AW	85	
23	CW	85	
23	EW	85	
23	GW	85	
24	AX	78	
24	CX	78	
24	EX	78	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
24	GX	78	
25	AY	63	
25	CY	63	
25	EY	63	
25	GY	63	
26	AZ	59	
26	CZ	59	
26	EZ	59	
26	GZ	59	
27	A0	57	
27	C0	57	
27	E0	57	
27	G0	57	
28	A1	55	
28	C1	55	
28	E1	55	
28	G1	55	
29	A2	46	
29	C2	46	
29	E2	46	
29	G2	46	
30	A3	65	
30	C3	65	
30	E3	65	
30	G3	65	
31	A4	38	
31	C4	38	
31	E4	38	
31	G4	38	
32	A5	165	
32	E5	165	
33	BA	1542	
33	DA	1542	
33	FA	1542	
33	HA	1542	
34	BB	241	
34	DB	241	
34	FB	241	
34	HB	241	
35	BC	233	
35	DC	233	
35	FC	233	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
35	HC	233	
36	BD	206	
36	DD	206	
36	FD	206	
36	HD	206	
37	BE	167	
37	DE	167	
37	FE	167	
37	HE	167	
38	BF	135	
38	DF	135	
38	FF	135	
38	HF	135	
39	BG	179	
39	DG	179	
39	FG	179	
39	HG	179	
40	BH	130	
40	DH	130	
40	FH	130	
40	HH	130	
41	BI	130	
41	DI	130	
41	FI	130	
41	HI	130	
42	BJ	103	
42	DJ	103	
42	FJ	103	
42	HJ	103	
43	BK	129	
43	DK	129	
43	FK	129	
43	HK	129	
44	BL	124	
44	DL	124	
44	FL	124	
44	HL	124	
45	BM	118	
45	DM	118	
45	FM	118	
45	HM	118	
46	BN	101	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
46	DN	101	
46	FN	101	
46	HN	101	
47	BO	89	
47	DO	89	
47	FO	89	
47	HO	89	
48	BP	82	
48	DP	82	
48	FP	82	
48	HP	82	
49	BQ	84	
49	DQ	84	
49	FQ	84	
49	HQ	84	
50	BR	75	
50	DR	75	
50	FR	75	
50	HR	75	
51	BS	92	
51	DS	92	
51	FS	92	
51	HS	92	
52	BT	87	
52	DT	87	
52	FT	87	
52	HT	87	
53	BU	71	
53	DU	71	
53	FU	71	
53	HU	71	
54	BV	704	
54	DV	704	
54	FV	704	
54	HV	704	
55	BW	6	
55	DW	6	
55	FW	6	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	AA	3005	-	X
56	MG	AA	3007	-	X
56	MG	AA	3009	-	X
56	MG	AA	3010	-	X
56	MG	AA	3018	-	X
56	MG	AA	3028	-	X
56	MG	AA	3033	-	X
56	MG	AA	3035	-	X
56	MG	AA	3041	-	X
56	MG	AA	3042	-	X
56	MG	AA	3055	-	X
56	MG	AA	3059	-	X
56	MG	AA	3060	-	X
56	MG	AA	3062	-	X
56	MG	AA	3078	-	X
56	MG	AA	3083	-	X
56	MG	AA	3084	-	X
56	MG	AA	3091	-	X
56	MG	AA	3093	-	X
56	MG	AA	3098	-	X
56	MG	AA	3102	-	X
56	MG	AA	3107	-	X
56	MG	AA	3109	-	X
56	MG	AA	3115	-	X
56	MG	AA	3117	-	X
56	MG	AA	3123	-	X
56	MG	AC	301	-	X
56	MG	AC	303	-	X
56	MG	BA	1606	-	X
56	MG	BA	1607	-	X
56	MG	BA	1612	-	X
56	MG	BA	1614	-	X
56	MG	BA	1615	-	X
56	MG	BA	1618	-	X
56	MG	BA	1619	-	X
56	MG	BA	1622	-	X
56	MG	BA	1625	-	X
56	MG	BA	1635	-	X
56	MG	BA	1637	-	X
56	MG	BA	1638	-	X
56	MG	BV	802	-	X
56	MG	CA	3005	-	X
56	MG	CA	3010	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	CA	3011	-	X
56	MG	CA	3016	-	X
56	MG	CA	3028	-	X
56	MG	CA	3030	-	X
56	MG	CA	3037	-	X
56	MG	CA	3039	-	X
56	MG	CA	3040	-	X
56	MG	CA	3051	-	X
56	MG	CA	3066	-	X
56	MG	CA	3073	-	X
56	MG	CA	3077	-	X
56	MG	CA	3079	-	X
56	MG	CA	3085	-	X
56	MG	CA	3091	-	X
56	MG	CA	3096	-	X
56	MG	CA	3097	-	X
56	MG	CA	3107	-	X
56	MG	CA	3114	-	X
56	MG	CA	3118	-	X
56	MG	CA	3119	-	X
56	MG	CA	3121	-	X
56	MG	CA	3123	-	X
56	MG	CE	301	-	X
56	MG	DA	1602	-	X
56	MG	DA	1612	-	X
56	MG	DA	1616	-	X
56	MG	DA	1621	-	X
56	MG	DA	1628	-	X
56	MG	DA	1629	-	X
56	MG	DA	1631	-	X
56	MG	DA	1636	-	X
56	MG	DA	1640	-	X
56	MG	EA	3009	-	X
56	MG	EA	3011	-	X
56	MG	EA	3015	-	X
56	MG	EA	3020	-	X
56	MG	EA	3025	-	X
56	MG	EA	3027	-	X
56	MG	EA	3031	-	X
56	MG	EA	3034	-	X
56	MG	EA	3042	-	X
56	MG	EA	3049	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	EA	3050	-	X
56	MG	EA	3052	-	X
56	MG	EA	3053	-	X
56	MG	EA	3055	-	X
56	MG	EA	3060	-	X
56	MG	EA	3061	-	X
56	MG	EA	3064	-	X
56	MG	EA	3067	-	X
56	MG	EA	3069	-	X
56	MG	EA	3073	-	X
56	MG	EA	3078	-	X
56	MG	EA	3079	-	X
56	MG	EA	3085	-	X
56	MG	EA	3087	-	X
56	MG	EA	3088	-	X
56	MG	EA	3099	-	X
56	MG	EA	3102	-	X
56	MG	EA	3107	-	X
56	MG	EA	3108	-	X
56	MG	EA	3114	-	X
56	MG	EA	3118	-	X
56	MG	EA	3120	-	X
56	MG	EA	3121	-	X
56	MG	EA	3122	-	X
56	MG	EA	3123	-	X
56	MG	EA	3126	-	X
56	MG	EA	3129	-	X
56	MG	EA	3131	-	X
56	MG	EA	3132	-	X
56	MG	ED	301	-	X
56	MG	EQ	201	-	X
56	MG	FA	1605	-	X
56	MG	FA	1608	-	X
56	MG	FA	1609	-	X
56	MG	FA	1610	-	X
56	MG	FA	1611	-	X
56	MG	FA	1612	-	X
56	MG	FA	1615	-	X
56	MG	FA	1621	-	X
56	MG	FA	1623	-	X
56	MG	FA	1624	-	X
56	MG	FA	1627	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	FA	1628	-	X
56	MG	FA	1636	-	X
56	MG	FA	1639	-	X
56	MG	FA	1640	-	X
56	MG	FE	201	-	X
56	MG	GA	3004	-	X
56	MG	GA	3005	-	X
56	MG	GA	3009	-	X
56	MG	GA	3010	-	X
56	MG	GA	3014	-	X
56	MG	GA	3020	-	X
56	MG	GA	3029	-	X
56	MG	GA	3030	-	X
56	MG	GA	3033	-	X
56	MG	GA	3034	-	X
56	MG	GA	3037	-	X
56	MG	GA	3039	-	X
56	MG	GA	3040	-	X
56	MG	GA	3042	-	X
56	MG	GA	3044	-	X
56	MG	GA	3045	-	X
56	MG	GA	3047	-	X
56	MG	GA	3048	-	X
56	MG	GA	3051	-	X
56	MG	GA	3052	-	X
56	MG	GA	3059	-	X
56	MG	GA	3060	-	X
56	MG	GA	3061	-	X
56	MG	GA	3063	-	X
56	MG	GA	3067	-	X
56	MG	GA	3068	-	X
56	MG	GA	3070	-	X
56	MG	GA	3072	-	X
56	MG	GA	3073	-	X
56	MG	GA	3078	-	X
56	MG	GA	3080	-	X
56	MG	GA	3081	-	X
56	MG	GA	3083	-	X
56	MG	GA	3084	-	X
56	MG	GA	3087	-	X
56	MG	GA	3088	-	X
56	MG	GA	3091	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	GA	3094	-	X
56	MG	GA	3100	-	X
56	MG	GA	3102	-	X
56	MG	GA	3103	-	X
56	MG	GA	3106	-	X
56	MG	GA	3108	-	X
56	MG	GA	3110	-	X
56	MG	GA	3111	-	X
56	MG	GA	3114	-	X
56	MG	GA	3115	-	X
56	MG	GA	3118	-	X
56	MG	GA	3120	-	X
56	MG	GA	3123	-	X
56	MG	GA	3129	-	X
56	MG	GA	3131	-	X
56	MG	GA	3133	-	X
56	MG	GB	1202	-	X
56	MG	GS	201	-	X
56	MG	HA	1601	-	X
56	MG	HA	1602	-	X
56	MG	HA	1603	-	X
56	MG	HA	1604	-	X
56	MG	HA	1607	-	X
56	MG	HA	1610	-	X
56	MG	HA	1611	-	X
56	MG	HA	1612	-	X
56	MG	HA	1613	-	X
56	MG	HA	1615	-	X
56	MG	HA	1621	-	X
56	MG	HA	1625	-	X
56	MG	HA	1626	-	X
56	MG	HA	1630	-	X
56	MG	HA	1632	-	X
56	MG	HA	1639	-	X
56	MG	HT	101	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 590573 atoms, of which 0 are hydrogen and 0 are deuterium.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
1	CA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
1	EA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
1	GA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			

- Molecule 2 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
2	CB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
2	EB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
2	GB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
3	CC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
3	EC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
3	GC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	CD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	ED	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	GD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	CE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	EE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	GE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	CF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	EF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	GF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
7	CG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
7	EG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	GG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	CH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	EH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	GH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			

- Molecule 9 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	CI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	EI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	GI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 10 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	CJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	EJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	GJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 11 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	CK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	EK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	GK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			

- Molecule 12 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	CL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	EL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	GL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 13 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	CM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	EM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	GM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 14 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	CN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	EN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	GN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

- Molecule 15 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	CO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	EO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	GO	116	Total	C	N	O		0	0	0
			892	552	178	162				

- Molecule 16 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	CP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	EP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	GP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 17 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	CQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	EQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	GQ	117	Total	C	N	O		0	0	0
			947	604	192	151				

- Molecule 18 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	CR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	ER	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	GR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 19 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	CS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	ES	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	GS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 20 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	CT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	ET	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	GT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 21 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	CU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	EU	102	Total	C	N	O	0	0	0
			779	492	146	141			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	GU	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 22 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	CV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	EV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	GV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 23 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	CW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	EW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	GW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 24 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	CX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	EX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	GX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 25 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	CY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	EY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	GY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 26 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	AZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	CZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	EZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	GZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	C0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	E0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	G0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	A1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	C1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	E1	50	Total	C	N	O	0	0	0
			409	263	75	71			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	G1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	C2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	E2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	G2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	C3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	E3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	G3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	A4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	C4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	E4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	G4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 32 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	A5	148	Total	C	N	O	S	0	0	0
			1117	705	196	209	7			
32	E5	144	Total	C	N	O	S	0	0	0
			1092	691	192	202	7			

- Molecule 33 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
33	DA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
33	FA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
33	HA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			

- Molecule 34 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	DB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	FB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	HB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

- Molecule 35 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
35	DC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
35	FC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
35	HC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 36 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
36	DD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
36	FD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
36	HD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 37 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
37	DE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
37	FE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
37	HE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

- Molecule 38 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	DF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	FF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	HF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 39 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
39	DG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
39	FG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	HG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			

- Molecule 40 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
40	DH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
40	FH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
40	HH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 41 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
41	DI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
41	FI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
41	HI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 42 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
42	DJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
42	FJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
42	HJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

- Molecule 43 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
43	DK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
43	FK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
43	HK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 44 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
44	DL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
44	FL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
44	HL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 45 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
45	DM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
45	FM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
45	HM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			

- Molecule 46 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
46	DN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
46	FN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	HN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 47 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
47	DO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
47	FO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
47	HO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 48 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
48	DP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
48	FP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
48	HP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 49 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
49	DQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
49	FQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
49	HQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

- Molecule 50 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	BR	55	Total	C	N	O	0	0	0
			455	288	86	81			
50	DR	55	Total	C	N	O	0	0	0
			455	288	86	81			
50	FR	55	Total	C	N	O	0	0	0
			455	288	86	81			
50	HR	55	Total	C	N	O	0	0	0
			455	288	86	81			

- Molecule 51 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
51	DS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
51	FS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
51	HS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			

- Molecule 52 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
52	DT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
52	FT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
52	HT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 53 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
53	DU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
53	FU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	HU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 54 is a protein called elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	DV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	FV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	HV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			

- Molecule 55 is a protein called Viomycin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	BW	6	Total	C	N	O	0	0	0
			48	25	13	10			
55	DW	6	Total	C	N	O	0	0	0
			48	25	13	10			
55	FW	6	Total	C	N	O	0	0	0
			48	25	13	10			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	FA	41	Total	Mg	0	0
			41	41		
56	BA	40	Total	Mg	0	0
			40	40		
56	CA	134	Total	Mg	0	0
			134	134		
56	HE	1	Total	Mg	0	0
			1	1		
56	AB	4	Total	Mg	0	0
			4	4		
56	BL	1	Total	Mg	0	0
			1	1		
56	BE	1	Total	Mg	0	0
			1	1		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	GA	134	Total 134	Mg 134	0	0
56	DU	1	Total 1	Mg 1	0	0
56	EB	4	Total 4	Mg 4	0	0
56	FU	1	Total 1	Mg 1	0	0
56	FV	1	Total 1	Mg 1	0	0
56	C4	1	Total 1	Mg 1	0	0
56	AE	1	Total 1	Mg 1	0	0
56	AA	130	Total 130	Mg 130	0	0
56	FE	1	Total 1	Mg 1	0	0
56	GB	4	Total 4	Mg 4	0	0
56	DV	1	Total 1	Mg 1	0	0
56	EA	133	Total 133	Mg 133	0	0
56	BU	1	Total 1	Mg 1	0	0
56	GC	1	Total 1	Mg 1	0	0
56	AD	1	Total 1	Mg 1	0	0
56	HT	1	Total 1	Mg 1	0	0
56	GL	1	Total 1	Mg 1	0	0
56	DA	42	Total 42	Mg 42	0	0
56	EC	1	Total 1	Mg 1	0	0
56	HC	1	Total 1	Mg 1	0	0
56	BV	1	Total 1	Mg 1	0	0

Continued on next page...

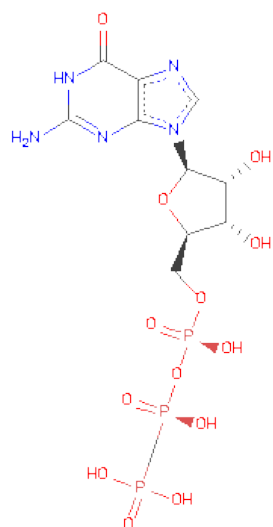
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CB	4	Total 4	Mg 4	0	0
56	GS	1	Total 1	Mg 1	0	0
56	AC	3	Total 3	Mg 3	0	0
56	EQ	1	Total 1	Mg 1	0	0
56	ED	2	Total 2	Mg 2	0	0
56	CD	1	Total 1	Mg 1	0	0
56	AT	1	Total 1	Mg 1	0	0
56	CE	1	Total 1	Mg 1	0	0
56	A3	1	Total 1	Mg 1	0	0
56	HA	40	Total 40	Mg 40	0	0
56	HV	1	Total 1	Mg 1	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	E4	1	Total 1	Zn 1	0	0
57	G4	1	Total 1	Zn 1	0	0
57	A4	1	Total 1	Zn 1	0	0
57	C4	1	Total 1	Zn 1	0	0

- Molecule 58 is PHOSPHOMETHYLPHOSPHONICACID GUANYLATE ESTER (three-letter code: GCP) (formula: $C_{11}H_{18}N_5O_{13}P_3$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
58	BV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
58	DV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
58	FV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
58	HV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	608	Total	O	0	0
			608	608		
59	AB	19	Total	O	0	0
			19	19		
59	AC	10	Total	O	0	0
			10	10		
59	AD	3	Total	O	0	0
			3	3		
59	AE	1	Total	O	0	0
			1	1		
59	AJ	1	Total	O	0	0
			1	1		
59	AL	7	Total	O	0	0
			7	7		
59	AN	4	Total	O	0	0
			4	4		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AP	1	Total O 1 1	0	0
59	AQ	1	Total O 1 1	0	0
59	AS	1	Total O 1 1	0	0
59	AU	1	Total O 1 1	0	0
59	A0	1	Total O 1 1	0	0
59	A3	1	Total O 1 1	0	0
59	A4	2	Total O 2 2	0	0
59	BA	197	Total O 197 197	0	0
59	BC	1	Total O 1 1	0	0
59	BD	1	Total O 1 1	0	0
59	BI	1	Total O 1 1	0	0
59	BK	1	Total O 1 1	0	0
59	BN	3	Total O 3 3	0	0
59	BT	2	Total O 2 2	0	0
59	BU	1	Total O 1 1	0	0
59	BV	1	Total O 1 1	0	0
59	CA	604	Total O 604 604	0	0
59	CB	20	Total O 20 20	0	0
59	CC	11	Total O 11 11	0	0
59	CD	3	Total O 3 3	0	0
59	CE	1	Total O 1 1	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	CF	1	Total 1	O 1	0	0
59	CJ	3	Total 3	O 3	0	0
59	CL	6	Total 6	O 6	0	0
59	CN	4	Total 4	O 4	0	0
59	CS	1	Total 1	O 1	0	0
59	CT	2	Total 2	O 2	0	0
59	C2	1	Total 1	O 1	0	0
59	C3	1	Total 1	O 1	0	0
59	C4	2	Total 2	O 2	0	0
59	DA	193	Total 193	O 193	0	0
59	DC	1	Total 1	O 1	0	0
59	DE	2	Total 2	O 2	0	0
59	DG	1	Total 1	O 1	0	0
59	DK	1	Total 1	O 1	0	0
59	DL	1	Total 1	O 1	0	0
59	DN	6	Total 6	O 6	0	0
59	DQ	1	Total 1	O 1	0	0
59	DT	1	Total 1	O 1	0	0
59	DU	1	Total 1	O 1	0	0
59	DV	1	Total 1	O 1	0	0
59	EA	617	Total 617	O 617	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	EB	20	Total 20	O 20	0	0
59	EC	8	Total 8	O 8	0	0
59	ED	1	Total 1	O 1	0	0
59	EL	4	Total 4	O 4	0	0
59	EN	2	Total 2	O 2	0	0
59	ER	1	Total 1	O 1	0	0
59	ET	1	Total 1	O 1	0	0
59	EU	1	Total 1	O 1	0	0
59	E0	2	Total 2	O 2	0	0
59	E3	2	Total 2	O 2	0	0
59	E4	1	Total 1	O 1	0	0
59	FA	198	Total 198	O 198	0	0
59	FE	1	Total 1	O 1	0	0
59	FK	1	Total 1	O 1	0	0
59	FN	3	Total 3	O 3	0	0
59	FQ	1	Total 1	O 1	0	0
59	FT	4	Total 4	O 4	0	0
59	FV	1	Total 1	O 1	0	0
59	GA	607	Total 607	O 607	0	0
59	GB	19	Total 19	O 19	0	0
59	GC	9	Total 9	O 9	0	0

Continued on next page...

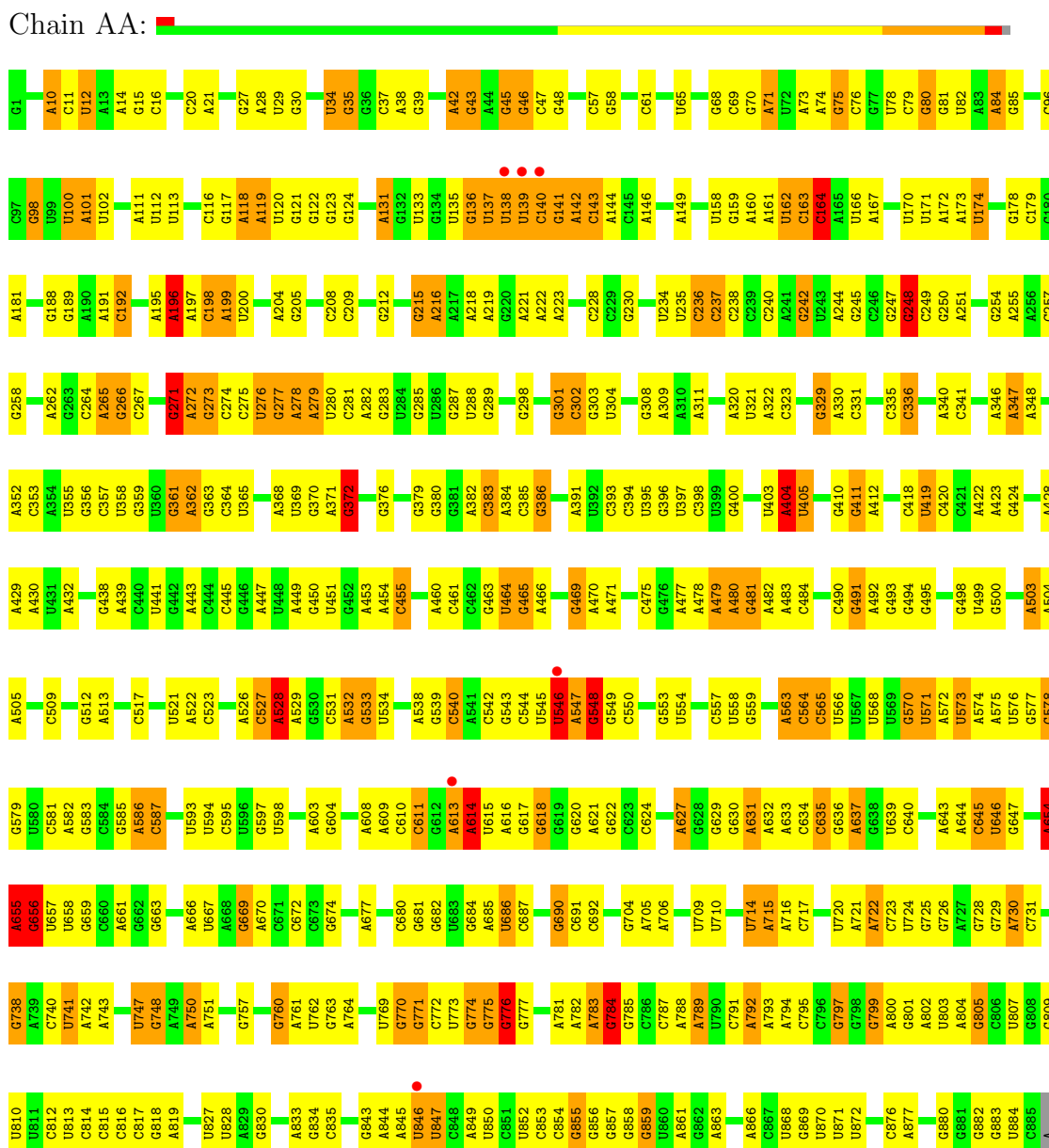
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	GD	4	Total 4	O 4	0	0
59	GE	2	Total 2	O 2	0	0
59	GL	4	Total 4	O 4	0	0
59	GN	3	Total 3	O 3	0	0
59	GQ	1	Total 1	O 1	0	0
59	GR	2	Total 2	O 2	0	0
59	GS	1	Total 1	O 1	0	0
59	GT	1	Total 1	O 1	0	0
59	GU	2	Total 2	O 2	0	0
59	GV	1	Total 1	O 1	0	0
59	G2	2	Total 2	O 2	0	0
59	G3	1	Total 1	O 1	0	0
59	G4	1	Total 1	O 1	0	0
59	HA	197	Total 197	O 197	0	0
59	HD	1	Total 1	O 1	0	0
59	HE	3	Total 3	O 3	0	0
59	HN	5	Total 5	O 5	0	0
59	HT	1	Total 1	O 1	0	0
59	HU	1	Total 1	O 1	0	0
59	HV	1	Total 1	O 1	0	0

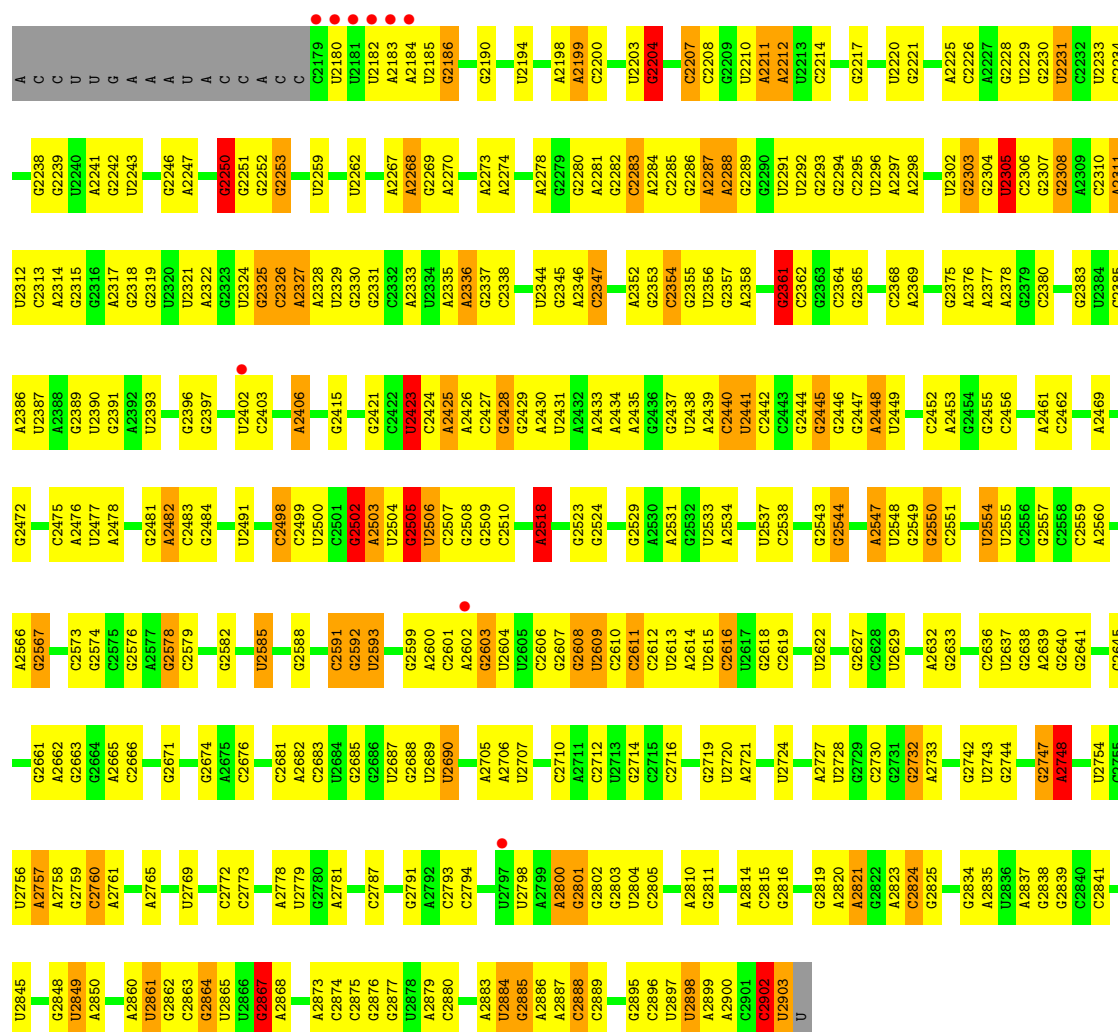
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 23S rRNA

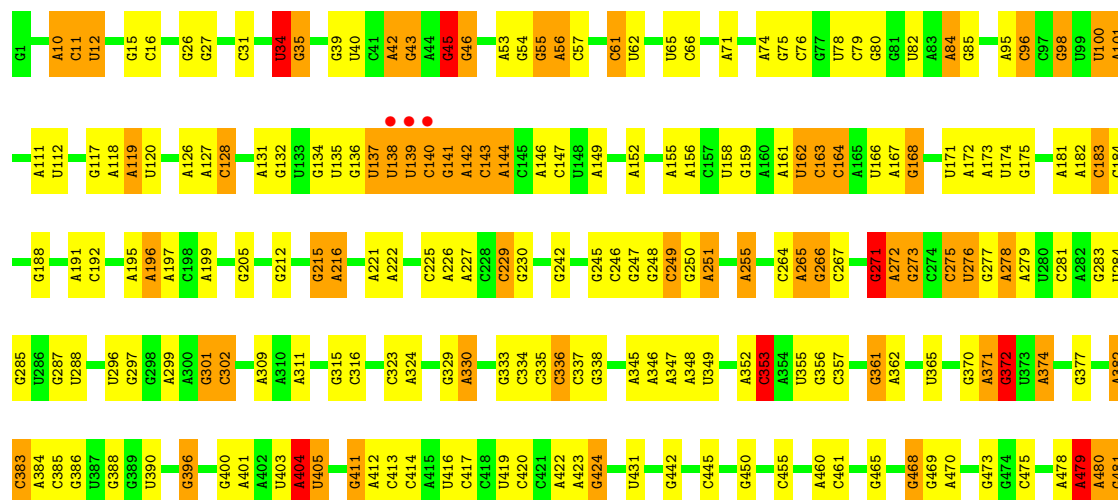


C2103	A2020	G1799	G1723	G1643	G1543	A1469	A1387	C1297	G1136	U1060	A981	C	U
C2104	C2021	C1800	G1724	G1644	A1544	A1470	G1386	C1298	G1137	U1061	C982	C	
U2105	U2022	A1801	U1725	G1645	A1545	A1471	G1389	G1299	G1138	G1062	A983	C	
C2203	C2023	A1802	U1726	G1646	A1546	A1472	U1390	G1300	G1139	G1063	A984	C	
C2107	G2024	A1805	C1727	G1647	A1547	G1473	U1394	A1301	U1141	C1064	C985	G	
A2108	C2025	G1806	U1728	G1648	A1548	G1474	A1395	C1305	U1065	U1066	G989		
U2109	U2026	G1807	U1729	G1649	A1549	A1475	U1396	C1306	A1067	A1068	A990		
U2110	G2027	A1808	U1730	A1650	G1555	A1476	U1397	A1307	U1069	A1070	C991		
U		G1811	G1731	A1651	C1556	G1477	U1398	A1308	U1071	A1072	C995		
A		U1812	U1732	G1652	G1557	A1478	C1399	G1309	A1151	G1073	A996		
G		G1813	U1733	G1653	C1565	U1481	U1400	C1315	C1161	A1074	U999		
G		G1814	U1734	A1654	G1566	G1482	G1401	U1316		A1075	A1000		
A		A1815	U1735	A1655	G1567	G1483	U1402	G1317		G1076	A1001		
U		C1816	U1736	G1656	G1568	U1484	A1403	U1318	A1165	C1077	G914		
A		G1817	U1737	U1657	A1569	U1487	A1404	C1319	C1167	A1078	C915		
A		U1818	U1738	C1658	C1574	U1488	U1405	G1320	G1168	G1079	G916		
G		U1819	U1739	A1665	G1574	U1489	U1406	A1322	A1171	C1080	A917		
U		U1820	U1740	G1666	U1578	A1490	G1410	A1327	A1172	C1081	A918		
G		G1823	U1741	G1667	U1579	A1491	U1411	A1328	C1177	U1082	U919		
G		G1824	U1742	A1668	G1581	A1495	U1412	U1329	G1178	U1083	A920		
A		G1825	U1743	A1669	C1582	A1496	U1413	G1330	C1179	G1084	C921		
G		G1826	U1744	C1670	A1583	G1500	G1416	C1331	U1180	A1085	G922		
G		A1829	U1745	U1671	U1584	G1501	G1417	G1332	U1181	C1086	G923		
C		C1830	U1746	A1672	C1585	A1504	G1418	G1333	A1175	A1087	A927		
C		G1831	U1747	G1673	A1586	A1505	A1419	A1336	U1176	G1088	U931		
U		C1832	U1748	G1674	G1587	A1506	A1420	G1337	C1177	A1089	U932		
U		A1833	U1749	C1675	A1591	A1507	G1421	C1338	C1178	U1090	U933		
U		G1834	U1750	A1676	G1592	A1508	G1422	G1339	U1019	A1091	A947		
G2133	A2069	U1841	U1751	A1677	A1593	G1510	G1423	U1340	U1181	A1092	A948		
A2134	A2060	G1842	U1752	U1683	U1594	G1511	G1424	G1341	U1182	A1093	U934		
A2135	G2061	C1843	U1753	G1684	C1595	G1512	G1425	G1342	A1183	G1094	C935		
U2136	A2062	C1844	U1754	C1685	G1596	G1513	G1426	A1343	U1184	G1095	A941		
G2137	U2063	A1847	U1755	G1686	G1601	A1514	G1427	U1344	U1269	G1096	G953		
U2138	C2065	A1848	U1756	G1687	U1602	A1515	G1428	G1345	G1270	A1097	G954		
U2139	C2066	A1849	U1757	A1690	A1603	G1516	G1429	U1346	U1263	A1098	U958		
G2140	G2067	A1853	U1758	C1691	C1604	G1517	A1430	C1350	A1264	G1099	A959		
A2142	U2068	G1857	U1759	G1692	G1605	A1518	A1431	C1351	A1265	G1025	A960		
C2143	A2070	A1858	U1760	U1693	C1606	G1519	A1432	U1352	G1266	G1026	C946		
C2144	A2071	G1859	U1761	C1694	C1607	U1520	G1433	G1353	A1267	A1027	A947		
C2145	C2072	U1865	U1762	G1695	A1608	G1521	U1434	G1354	A1268	A1028	C948		
A2147	U2076	A1866	U1763	A1705	A1609	U1522	U1435	G1355	G1271	G1030	G953		
G2148	U2081	G1869	U1764	C1706	A1610	G1523	G1436	A1356	A1272	A1032	U954		
C2150	A2082	C1870	U1765	A1707	G1613	A1524	U1437	A1357	A1273	A1033	U958		
U2151	G2087	A1871	U1766	G1710	A1616	A1525	U1438	G1358	U1197	G1041	A959		
G2152	U2088	U1872	U1767	A1711	G1619	G1526	U1439	G1359	U1198	A1045	A960		
C2153	C2083	G1875	U1768	U1712	G1622	G1527	G1440	C1370	U1199	A1046	G962		
A2154	A2094	C1878	U1769	U1713	G1623	A1528	G1441	G1371	G1202	G1047	U963		
G2155	U2007	U1879	U1770	A1714	G1624	A1529	U1442	A1377	A1205	G1051	C964		
C2157	A2097	G1879	U1771	U1715	G1625	A1530	U1443	C1378	G1206	C1052	A971		
A	U2098	U1884	U1772	U1716	A1626	A1531	G1444	G1379	C1207	A1054	A972		
G	U2099	G1906	U1773	U1717	G1627	A1532	U1445	G1380	U1130	G1055	A973		
C	G2100	U1906	U1774	U1718	G1628	A1533	G1446	A1383	G1215	G1056	G974		
C	A2101	G1906	U1775	U1719	G1629	A1534	U1447	A1384	G1216	A1057	A975		
G	G2102		U1776	U1720	G1630	A1535	U1448	A1385	U1219	U1058	A979		
			U1777	A1722	C1638	U1539	G1449	C1386	G1220	G1059	A980		

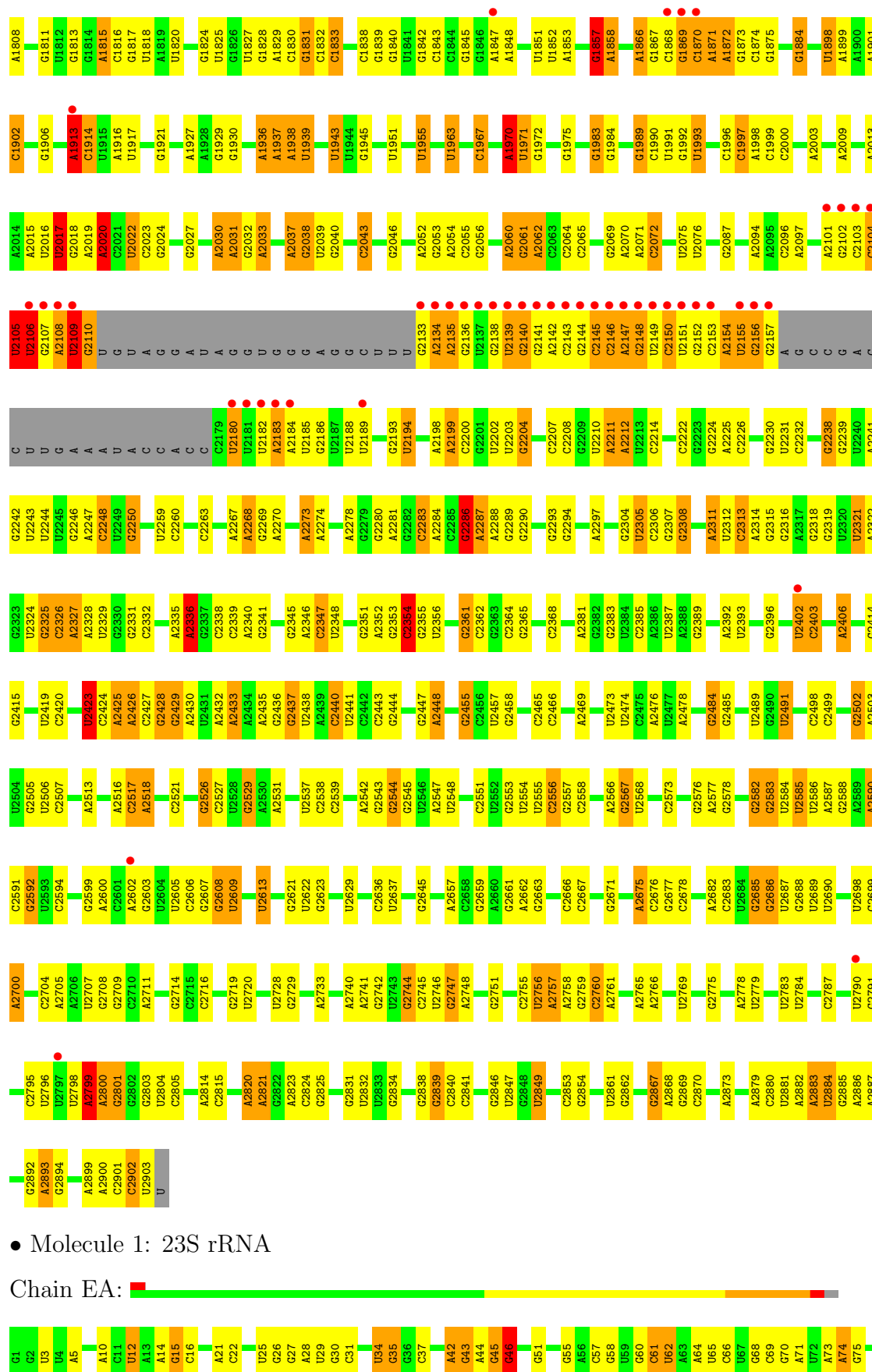


• Molecule 1: 23S rRNA

Chain CA:

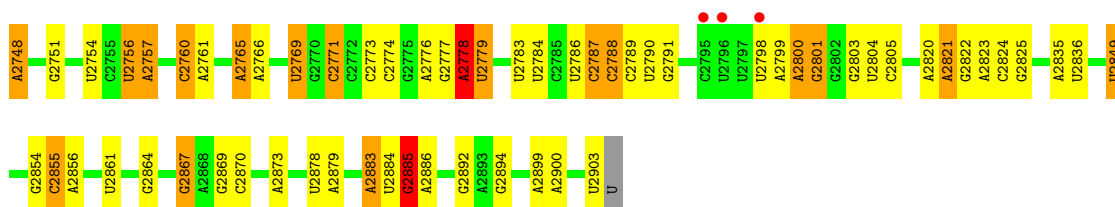


C1732	C1733	G1734	A1735	G1736	G1737	G1738	A1739	G1740	A1741	A1742	A1743	A1744	A1745	G1753	A1754	A1755	G1756	A1757	U1758	A1759	C1760	C1761	A1762	G1763	C1764	U1765	G1770	A1773	C1774	U1775	G1776	U1777	U1778	U1779	G1780	U1781	U1782	A1783	A1784	A1785	A1786	C1790	A1791	G1792	C1793	A1794	C1795	U1796	G1797	U1798	G1799	C1800	A1801	A1802	A1805																																																																																																																																																																																																																																																																																																																																																									
U1621	G1622	G1623	A1626	G1627	A1630	A1635	U1636	A1637	U1647	U1648	G1649	A1652	G1653	A1654	A1655	C1656	G1663	A1668	A1669	C1670	U1671	A1672	A1673	G1674	C1675	A1676	A1677	G1684	C1685	U1686	A1687	A1688	A1689	U1690	A1691	A1692	A1693	U1694	C1695	U1696	A1697	A1698	A1699	A1700	A1701	A1702	A1703	A1704	A1705	A1706	A1707	A1708	A1709	A1710	A1711	A1712	A1713	A1714	A1715	A1716	A1717	A1718	A1719	A1720	A1721	A1722	A1723	A1724	A1725	A1726	A1727	A1728	A1729	A1730	A1731																																																																																																																																																																																																																																																																																																																																					
U1520	G1521	U1522	U1523	G1524	A1525	C1526	G1527	C1533	U1534	A1535	C1536	G1537	G1538	C1541	A1549	C1550	C1558	A1566	A1569	A1570	A1571	A1572	U1578	G1581	C1582	A1583	U1584	C1585	A1593	U1594	C1595	U1602	C1603	C1604	C1605	C1606	C1607	A1608	A1609	A1610	G1613	A1614	C1615	A1616	C1617	A1618	C1619	A1620	A1621	A1622	A1623	A1624	A1625	A1626	A1627	A1628	A1629	A1630	A1631	A1632	A1633	A1634	A1635	A1636	A1637																																																																																																																																																																																																																																																																																																																																															
G1332	G1425	G1426	A1427	C1428	G1435	G1436	C1437	U1438	A1439	U1440	G1441	U1442	G1443	G1444	C1447	G1448	G1452	A1453	U1458	G1459	U1460	A1469	U1474	G1475	U1476	G1477	G1478	G1482	G1483	U1484	U1485	U1486	U1487	C1489	G1500	G1501	A1504	A1508	A1509	G1510	G1513	A1514	A1515	G1516	G1517	A1518	G1519	A1520	A1521	A1522	A1523	A1524	A1525	A1526	A1527	A1528	A1529	A1530	A1531	A1532	A1533	A1534	A1535	A1536	A1537	A1538	A1539	A1540	A1541	A1542	A1543	A1544	A1545	A1546	A1547	A1548	A1549	A1550	A1551	A1552	A1553	A1554	A1555	A1556	A1557	A1558	A1559	A1560	A1561	A1562	A1563	A1564	A1565	A1566	A1567	A1568	A1569	A1570	A1571	A1572	A1573	A1574	A1575	A1576	A1577	A1578	A1579	A1580	A1581	A1582	A1583	A1584	A1585	A1586	A1587	A1588	A1589	A1590	A1591	A1592	A1593	A1594	A1595	A1596	A1597	A1598	A1599	A1600	A1601	A1602	A1603	A1604	A1605	A1606	A1607	A1608	A1609	A1610	A1611	A1612	A1613	A1614	A1615	A1616	A1617	A1618	A1619	A1620	A1621	A1622	A1623	A1624	A1625	A1626	A1627	A1628	A1629	A1630	A1631	A1632	A1633	A1634	A1635	A1636	A1637																																																																																																																																																																																																																																											
U1250	G1157	G1160	C1161	C1164	A1165	C1166	C1167	A1168	A1169	C1170	G1171	U1174	A1175	U1176	C1177	C1178	G1179	U1180	U1181	G1186	G1187	U1188	U1189	G1190	U1198	A1205	G1206	C1207	G1215	U1219	G1220	U1222	C1223	A1226	G1232	C1233	U1234	G1235	G1236	A1237	G1238	U1239	U1240	A1244	A1247	U1249	A1253	A1254	U1255	C1257	A1262	U1263	A1264	U1265	C1267	U1268	A1269	G1270	U1271	A1272	U1273	G1277	C1278	G1279	G1280	G1281	A1286	U1287	G1288	G1292	C1293	U1294	C1295	G1296	G1299	G1300	A1301	C1305	C1306	G1310	G1311	U1312	U1313	U1316	U1317	U1318	G1319	C1320	A1322	C1323	G1324	A1327	A1328	U1329	A1332	A1333	A1334	A1335	A1336	A1337	A1338	A1339	A1340	A1341	A1342	A1343	A1344	A1345	A1346	A1347	A1348	A1349	A1350	A1351	A1352	A1353	A1354	A1355	A1356	A1357	A1358	A1359	A1360	A1361	A1362	A1363	A1364	A1365	A1366	A1367	A1368	A1369	A1370	A1371	A1372	A1373	A1374	A1375	A1376	A1377	A1378	A1379	A1380	A1381	A1382	A1383	A1384	A1385	A1386	A1387	A1388	A1389	A1390	A1391	A1392	A1393	A1394	A1395	A1396	A1397	A1398	A1399	A1400	A1401	A1402	A1403	A1404	A1405	A1406	A1407	A1408	A1409	A1410	A1411	A1412	A1413	A1414	A1415	A1416	A1417	A1418	A1419	A1420	A1421	A1422	A1423	A1424	A1425	A1426	A1427	A1428	A1429	A1430	A1431	A1432	A1433	A1434	A1435	A1436	A1437	A1438	A1439	A1440	A1441	A1442	A1443	A1444	A1445	A1446	A1447	A1448	A1449	A1450	A1451	A1452	A1453	A1454	A1455	A1456	A1457	A1458	A1459	A1460	A1461	A1462	A1463	A1464	A1465	A1466	A1467	A1468	A1469	A1470	A1471	A1472	A1473	A1474	A1475	A1476	A1477	A1478	A1479	A1480	A1481	A1482	A1483	A1484	A1485	A1486	A1487	A1488	A1489	A1490	A1491	A1492	A1493	A1494	A1495	A1496	A1497	A1498	A1499	A1500	A1501	A1502	A1503	A1504	A1505	A1506	A1507	A1508	A1509	A1510	A1511	A1512	A1513	A1514	A1515	A1516	A1517	A1518	A1519	A1520	A1521	A1522	A1523	A1524	A1525	A1526	A1527	A1528	A1529	A1530	A1531	A1532	A1533	A1534	A1535	A1536	A1537	A1538	A1539	A1540	A1541	A1542	A1543	A1544	A1545	A1546	A1547	A1548	A1549	A1550	A1551	A1552	A1553	A1554	A1555	A1556	A1557	A1558	A1559	A1560	A1561	A1562	A1563	A1564	A1565	A1566	A1567	A1568	A1569	A1570	A1571	A1572	A1573	A1574	A1575	A1576	A1577	A1578	A1579	A1580	A1581	A1582	A1583	A1584	A1585	A1586	A1587	A1588	A1589	A1590	A1591	A1592	A1593	A1594	A1595	A1596	A1597	A1598	A1599	A1600	A1601	A1602	A1603	A1604	A1605	A1606	A1607	A1608	A1609	A1610	A1611	A1612	A1613	A1614	A1615	A1616	A1617	A1618	A1619	A1620	A1621	A1622	A1623	A1624	A1625	A1626	A1627	A1628	A1629	A1630	A1631	A1632	A1633	A1634	A1635	A1636	A1637
C584	C585	U586	U587	U588	U589	U590	U591	U592	U593	U594	U595	U596	U597	U598	U599	U600	U601	U602	U603	U604	U605	U606	U607	U608	U609	U610	U611	U612	U613	U614	U615	U616	U617	U618	U619	U620	U621	U622	U623	U624	U625	U626	U627	U628	U629	U630	U631	U632	U633	U634	U635	U636	U637	U638	U639	U640	U641	U642	U643	U644	U645	U646	U647	U648	U649	U650	U651	U652	U653	U654	U655	U656	U657	U658	U659	U660	U661	U662	U663	U664	U665	U666	U667	U668	U669	U670	U671	U672	U673	U674	U675	U676	U677	U678	U679	U680	U681	U682	U683	U684	U685	U686	U687	U688	U689	U690	U691	U692	U693	U694	U695	U696	U697	U698	U699	U700	U701	U702	U703	U704	U705	U706	U707	U708	U709	U710	U711	U712	U713	U714	U715	U716	U717	U718	U719	U720	U721	U722	U723	U724	U725	U726	U727	U728	U729	U730	U731																																																																																																																																																																																																																																																													
C484	C485	G489	C490	G491	A492	G493	G494	G495	A503	A504	A505	G506	A507	A508	C509	C510	U511	G512	A513	A514	C517	C523	C527	A528	A529	A532	G533	A538	G539	C540	C541	G542	G543	C544	U545	U546	A547	G548	G549	C550	G553	U554	C557	U558	G559	C560	A563																																																																																																																																																																																																																																																																																																																																																																	



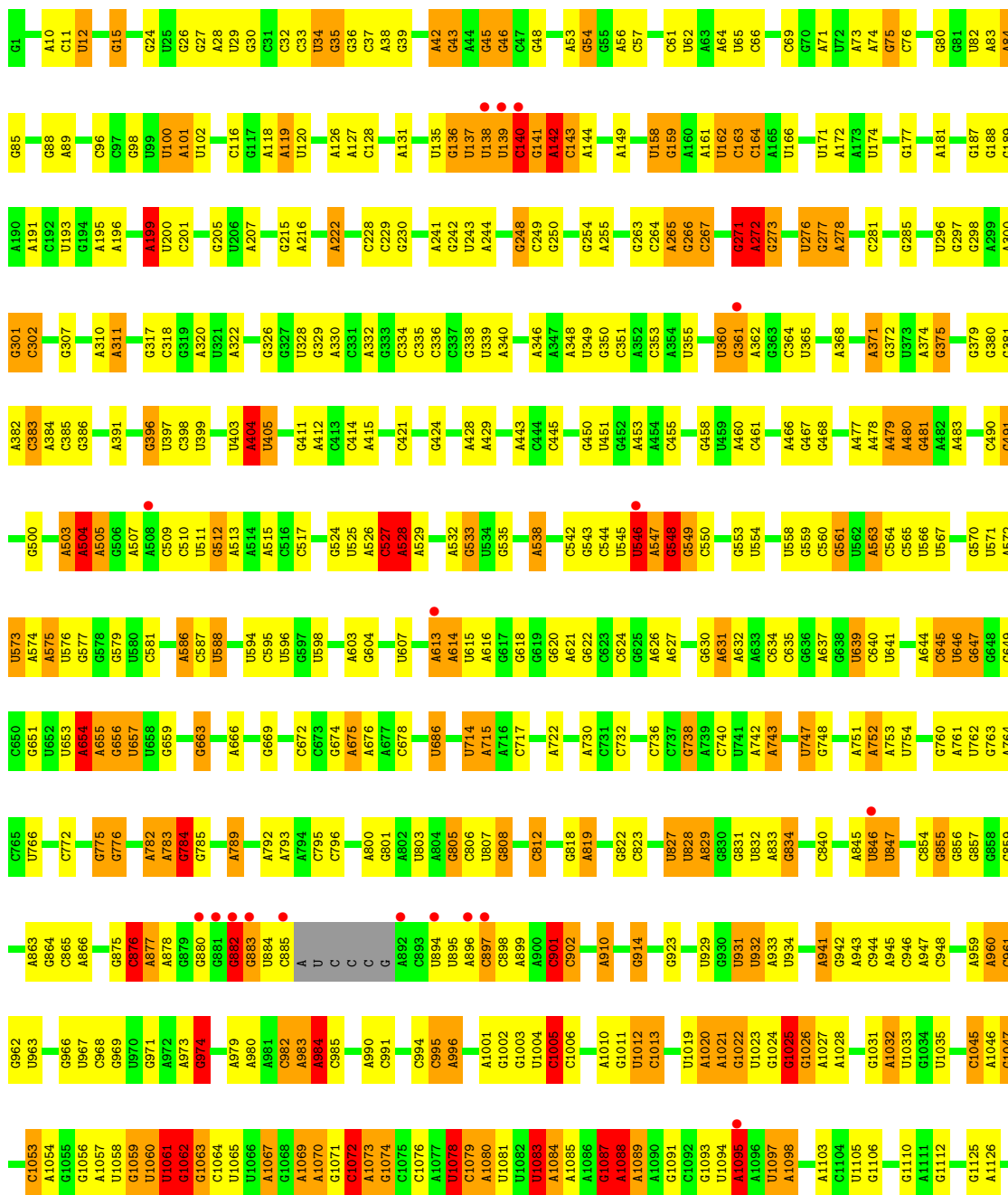
G1335	U1249	C1164	U1081	C1006	A927	A845	G777	C672	U588	G518	U431	A340	G258	U170	U78
A1336	G1260	A1169	U1082	C1007	A931	U846	G778	C673	U598	U519	U432	A341	G259	U171	C79
U1340	G1251	C1170	U1083	U1007	U931	U847	U779	G674	U594	U520	C435	C341	G260	U172	G80
G1341	A1253	A1084	A1085	G1011	U932	C848	G780	G675	C436	A526	C436	A346	G261	A173	U82
A1254	A1086	C1171	A1086	U1012	A933	A849	A781	A677	A603	C527	A443	A347	C264	U174	A83
U1265	G1087	U1173	G1087	C1013	U934	G855	A782	C676	G604	A528	A447	A348	A265	G178	A84
G1256	A1088	U1174	A1088	A1014	C935	G856	A783	C677	A608	A529	A447	A349	A266	C179	G85
A1347	U1089	U1175	A1089	U1019	A936	G857	G784	C678	A609	A530	U451	C353	C267	U180	U87
C1348	A1090	U1176	A1090	U1020	C936	G858	A785	G679	A610	A531	U452	C354	C268	A181	G88
U1352	A1091	U1177	A1091	A1021	A941	G859	A786	C680	A611	A532	U453	C355	G271	A182	A95
U1263	U1092	C1178	U1092	G1022	G942	U860	A787	C681	G612	A533	U454	U355	G272	G186	C96
G1266	A1093	U1180	A1093	U1023	A945	A861	A788	G682	A613	A534	U455	U356	A273	G187	C97
G1271	G1025	U1181	G1025	A947	C946	G862	A789	U686	A614	A535	U456	U357	G274	G188	G98
A1272	G1026	U1182	G1026	C948	C947	U863	A790	U687	U615	A536	U457	U358	G275	G189	U99
U1273	U1101	U1183	U1101	C949	C948	U864	U790	C687	A616	A537	U458	U359	G276	U190	U100
G1279	A1028	G1185	A1028	G954	U871	U865	A791	U688	U617	A538	U459	U360	G277	C192	A101
G1280	U1029	U1105	U1029	G955	G875	G866	G796	U689	G618	A539	U460	U361	G278	G195	U102
G1281	C1030	G1106	C1030	U958	C876	G867	G797	G708	G619	A540	U461	U362	G279	A196	
A1287	A1031	G1107	A1031	A959	C877	U868	G798	U714	G620	A541	U462	U363	G280	A197	G107
G1288	G1032	U1108	G1032	A960	A878	U869	G799	U715	A621	A542	U463	U364	G281	A198	G108
G1289	A1033	A1109	A1033	A961	A879	U870	A800	A716	G622	A543	U464	U365	G282	A199	G109
C1290	U1034	G1110	U1034	C962	G880	A801	A801	A717	G623	A544	U465	U366	G283	U284	
C1291	G1035	A1111	G1035	U963	G881	A802	A802	C717	G624	A545	U466	U367	G284	U285	G117
G1296	U1036	G1112	U1036	C964	G882	G805	G805	C718	G625	A546	U467	U368	G285	G285	A118
G1300	C1045	U1113	C1045	C965	G883	G806	G806	A721	G626	A547	U468	U369	G286	G286	A119
A1301	A1046	G1114	A1046	C966	G884	U807	U807	A722	A627	A548	U469	U370	G287	G287	U120
C1305	G1047	G1115	G1047	C967	U885	U808	U808	A723	U627	A549	U470	U371	G288	G288	G121
C1306	U1050	G1116	U1050	U967	C886	U809	U809	G724	A632	A550	U471	U372	G289	G289	
G1310	C1053	U1130	C1053	G971	A	U810	U810	G725	A633	A551	U472	U373	G290	G290	G124
G1311	U1060	G1131	U1060	A972	U	U811	U811	G726	U634	A552	U473	U374	G291	G291	A125
U1312	U1061	U1132	U1061	A973	C	U812	U812	G727	C635	A553	U474	U375	G292	G292	
C1313	G1062	U1133	G1062	G974	C	U813	U813	G728	G636	A554	U475	U376	G293	G293	G125
G1315	U1063	A1134	U1063	A975	C	C814	C814	G729	G637	A555	U476	U377	G294	G294	
U1316	C1064	U1135	C1064	G976	G	U815	U815	A730	U638	A556	U477	U378	G295	G295	G126
G1317	U1065	C1136	U1065	G977	A892	U816	U816	A731	U639	A557	U478	U379	G296	G296	A126
U1318	U1066	G1137	U1066	G978	C993	U817	U817	C732	U640	A558	U479	U380	G297	G297	
C1319	A1067	U1138	A1067	A979	A896	U818	U818	C733	A644	A559	U480	U381	G298	G298	C129
C1320	U1068	G1139	U1068	A980	A897	U819	U819	G734	U645	A560	U481	U382	G299	G299	A130
A1321	U1069	U1140	U1069	A981	C998	U820	U820	A735	U646	A561	U482	U383	G300	G300	A131
A1322	C1070	C1140	C1070	A982	C998	U821	U821	A736	U647	A562	U483	U384	G301	G301	
C1323	U1071	U1141	U1071	A983	C999	U822	U822	C737	U648	A563	U484	U385	G302	G302	C139
G1324	C1072	A1142	C1072	A984	A911	U823	U823	U738	U649	A564	U485	U386	G303	G303	A142
U1325	U1073	U1143	U1073	A985	A912	U824	U824	U739	U650	A565	U486	U387	G304	G304	A143
U1326	A1074	C1144	A1074	A986	A913	U825	U825	U740	U651	A566	U487	U388	G305	G305	A144
A1327	C1075	U1145	C1075	A987	A914	U826	U826	C740	U652	A567	U488	U389	G306	G306	
A1328	U1076	U1146	U1076	A988	A915	U827	U827	U741	U653	A568	U489	U390	G307	G307	U135
G1416	A1077	G1160	A1077	A989	A916	U828	U828	U742	U654	A569	U490	U391	G308	G308	G136
C1417	U1078	C1161	U1078	A990	A917	U829	U829	U743	U655	A570	U491	U392	G309	G309	U137
A1418	C1079	U1162	C1079	A991	A918	U830	U830	U744	U656	A571	U492	U393	G310	G310	U138
A1419	U1245	G1163	U1245	A992	A919	U831	U831	U745	U657	A572	U493	U394	G311	G311	U139
A1420	A1246	U1247	A1246	A993	A920	U832	U832	U746	U658	A573	U494	U395	G312	G312	G140
G1422	G1248		G1248	A994	A921	U833	U833	U747	U659	A574	U495	U396	G313	G313	G141
				A995	A922	U834	U834	U748	U660	A575	U496	U397	G314	G314	G142
				A996	A923	U835	U835	U749	U661	A576	U497	U398	G315	G315	G143
				A997	A924	U836	U836	U750	U662	A577	U498	U399	G316	G316	G144
				A998	A925	U837	U837	U751	U663	A578	U499	U400	G317	G317	G145
				A999	A926	U838	U838	U752	U664	A579	U500	U401	G318	G318	G146
				A1000	A927	U839	U839	U753	U665	A580	U501	U402	G319	G319	G147
				A1001	A928	U840	U840	U754	U666	A581	U502	U403	G320	G320	G148
				A1002	A929	U841	U841	U755	U667	A582	U503	U404	G321	G321	G149
				A1003	A930	U842	U842	U756	U668	A583	U504	U405	G322	G322	U158
				A1004	A931	U843	U843	U757	U669	A584	U505	U406	G323	G323	G159
				A1005	A932	U844	U844	U758	U670	A585	U506	U407	G324	G324	A160
				A1006	A933	U845	U845	U759	U671	A586	U507	U408	G325	G325	A161
				A1007	A934	U846	U846	U760	U672	A587	U508	U409	G326	G326	U162
				A1008	A935	U847	U847	U761	U673	A588	U509	U410	G327	G327	U163
				A1009	A936	U848	U848	U762	U674	A589	U510	U411	G328	G328	C164
				A1010	A937	U849	U849	U763	U675	A590	U511	U412	G329	G329	A165
				A1011	A938	U850	U850	U764	U676	A591	U512	U413	G330	G330	U166
				A1012	A939	U851	U851	U765	U677	A592	U513	U414	G331	G331	
				A1013	A940	U852	U852	U766	U678	A593	U514	U415	G332	G332	
				A1014	A941	U853	U853	U767	U679	A594	U515	U416	G333	G333	
				A1015	A942	U854	U854	U768	U680	A595	U516	U417	G334	G334	
				A1016	A943	U855	U855	U769	U681	A596	U517	U418	G335	G335	
				A1017	A944	U856	U856	U770	U682	A597	U518	U419	G336	G336	
				A1018	A945	U857	U857	U771	U683	A598	U519	U420	G337	G337	
				A1019	A946	U858	U858	U772	U684	A599	U520	U421	G338	G338	
				A1020	A947	U859	U859	U773	U685	A600	U521	U422	G339	G339	
				A1021	A948	U860	U860	U774	U686	A601	U522	U423	G340	G340	
				A1022	A949	U861	U861	U775	U687	A602	U523	U424	G341	G341	
				A1023	A950	U862	U862	U776	U688	A603	U524	U425	G342	G342	
				A1024	A951	U863	U863	U777	U689	A604	U525	U426	G343	G343	
				A1025	A952	U864	U864	U778	U690	A605	U526	U427	G344	G344	
				A1026	A953	U865	U865	U779	U691	A606	U527	U428	G345	G345	
				A1027	A954	U866	U866	U780	U692	A607	U528	U429	G346	G346	
				A1028	A955	U867	U867	U781	U693	A608	U529	U430	G347	G347	
				A1029	A956	U868	U868	U782	U694	A609	U530	U431	G348	G348	
				A1030	A957	U869	U869	U783	U695	A610	U531	U432	G349	G349	
				A1031	A958	U870	U870	U784	U696	A611	U532	U433	G350	G350	
				A1032	A959	U871	U871	U785	U697	A612	U533	U434	G351	G351	
				A1033	A960	U872	U872	U786	U698	A613	U534	U435	G352	G352	
				A1034	A961	U873									

C2676	C2679	C2680	C2681	C2682	C2683	C2684	C2685	C2686	C2687	C2688	C2689	C2690	C2691	C2692	C2693	C2694	C2695	C2696	C2697	C2698	C2699	C2700	C2703	C2704	C2705	C2706	C2707	C2708	C2709	C2710	C2711	C2712	C2713	C2714	C2715	C2716	C2719	C2720	C2721	C2722	C2723	C2724	C2725	C2726	C2729	C2730	C2731	C2732	C2733	C2741	C2742	C2743	C2744	C2747
G1425	G1426	G1427	G1428	A1434	G1435	G1436	G1437	A1438	G1439	G1440	G1441	C1446	C1447	G1450	C1451	G1452	G1453	U1457	U1458	G1459	A1469	U1474	G1475	U1476	A1477	G1478	G1479	C1480	U1481	G1482	U1486	U1487	C1493	G1501	A1504	C1507	A1508	A1509	G1510	G1511	U1512	U1513	G1514	A1515	G1519	U1520								
G1524	A1525	C1526	G1527	G1531	A1532	C1533	U1534	A1535	G1536	G1537	G1538	A1543	G1544	A1553	U1554	G1555	C1556	C1565	A1566	G1567	G1568	A1569	A1571	U1578	A1579	U1580	G1581	C1582	A1583	U1584	C1585	A1586	A1590	A1591	C1592	A1597	U1602	A1603	C1604	C1605	C1606	C1607	A1608	A1609	A1610	G1613	A1618	G1619						
C1732	G1733	G1737	G1738	A1739	A1744	A1745	A1746	A1757	U1758	A1759	C1760	G1763	C1764	G1770	C1771	A1772	C1773	U1774	G1775	G1776	U1777	A1778	U1779	A1780	A1781	U1782	A1783	A1784	A1785	A1786	A1789	C1790	A1791	U1796	G1797	U1798	G1799	C1800	A1801	A1802	A1808	G1811	G1814	A1815	C1816	G1817	U1818	A1819	C1730	G1731				
G1823	G1824	U1827	G1828	A1829	C1830	G1831	C1832	C1833	G1845	G1846	A1847	A1848	A1853	A1854	G1857	A1858	G1866	G1867	C1868	G1869	C1870	A1871	U1872	G1873	C1874	G1875	A1876	U1882	U1883	G1884	A1885	U1886	C1893	C1894	C1895	C1902	G1906	A1913	C1914	A1918	A1919	C1920	A1927	A1928	G1929	G1930	U1931							
G1935	A1936	A1937	A1938	U1939	U1940	U1943	G1950	U1955	U1956	G1959	G1964	A1965	A1966	C1967	A1968	U1970	U1971	G1972	G1983	C1984	C1985	U1991	G1992	U1993	C1996	C1997	A1998	C1999	G2002	A2003	G2004	A2005	C2006	A2009	A2013	U2016	U2017	G2018	A2019	A2020	C2021	U2022	C2023	G2024	C2025									
U2026	A2030	A2031	G2032	A2033	U2034	G2035	G2036	A2037	G2038	U2039	G2040	U2041	A2042	C2043	G2048	A2052	G2053	A2054	C2055	G2056	A2060	G2061	A2062	C2063	G2064	C2065	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2076	U2081	A2082	G2083	C2084	G2087	G2093	A2097	U2098	C2103	C2104	U2105	U2106	G2107	A2108	U2109					
G2110	U	G	U	G	G	U	G	A	U	G	G	G	A	G	C	U	G	G	U	G2133	A2134	A2135	G2136	G2137	G2138	U2139	G2140	G2141	A2142	C2143	G2144	C2145	C2146	A2147	G2148	U2149	U2150	U2151	C2152	G2153	A2154	U2155	G2156	G2157	A	C	G	U	A					
A	A	U	A	C	C	A	C	C	C2179	U2180	U2181	U2182	A2183	A2184	U2185	U2186	U2187	U2188	U2194	U2197	A2198	A2199	C2200	G2201	U2202	U2203	G2204	A2205	U2210	A2211	C2212	U2213	C2214	C2215	G2224	A2225	C2226	A2227	G2228	C2232	G2238	G2239	U2240	U2243	U2244	U2245	U2246	A2247	U2248	U2249	G2250			
G2253	C2264	A2267	A2268	C2269	U2272	A2273	A2274	C2275	A2278	G2279	C2280	A2281	C2282	C2283	A2284	C2285	G2286	A2287	C2288	G2289	C2290	U2291	U2292	A2297	A2298	U2305	G2306	G2307	A2308	A2311	U2312	C2313	A2314	C2315	G2316	A2317	G2318	U2319	A2320	A2321	A2322	C2323	C2324	C2325	C2326	U2327	U2328	U2329	U2330	U2331	U2332	A2333		
U2334	A2335	A2336	G2337	C2338	C2339	A2340	G2341	C2342	U2343	A2346	C2347	U2348	G2349	A2352	G2353	C2354	C2355	U2356	G2357	A2358	C2359	G2360	G2361	C2362	G2363	C2364	G2365	A2366	G2373	C2374	G2375	A2376	A2377	A2378	G2383	U2384	C2385	A2386	U2387	A2388	G2389	U2390	A2391	A2392	U2393	C2394	C2395	G2400	U2401	U2402	C2403	A2406		
G2415	U2419	U2423	C2424	A2425	A2426	C2427	G2428	G2429	A2430	U2431	A2435	C2440	U2441	C2442	C2443	G2444	G2445	G2446	G2447	A2448	U2449	G2455	G2458	A2461	C2462	C2463	G2464	C2465	C2466	C2467	A2476	U2477	C2478	C2479	U2480	G2481	A2482	C2483	G2484	C2485	C2486	G2487	U2488	G2489	U2490	U2491	U2492	C2498	C2499					
G2502	A2503	U2504	G2505	U2506	C2507	G2508	G2509	C2510	U2511	C2512	C2515	A2516	C2517	A2518	U2522	G2523	G2524	G2525	G2529	A2530	A2531	U2537	C2538	C2539	A2542	G2543	G2544	A2547	U2548	C2549	G2550	C2551	U2552	G2553	U2554	U2555	C2556	G2557	C2558	U2561	A2566	G2567	G2570	C2573	G2574	G2575	C2576	A2577						
C2578	C2579	U2580	C2581	G2582	C2583	U2584	U2585	U2586	A2587	C2588	A2589	C2590	C2591	U2592	U2593	C2594	G2595	C2599	A2602	G2603	C2606	G2607	G2608	U2609	C2610	C2611	C2612	U2613	A2614	U2615	U2629	C2636	U2637	G2638	A2639	G2645	C2646	U2647	G2648	G2655	U2656	A2657	C2658	G2661	C2662	G2663	C2664	A2665	C2666	G2671				
A2679	U2680	G2681	G2682	C2683	U2684	U2685	U2686	G2687	G2688	U2689	A2690	C2691	U2692	U2693	C2694	U2695	U2696	G2697	C2699	A2700	C2703	C2704	A2705	U2706	U2707	G2708	C2709	C2710	C2711	U2712	U2713	C2714	C2715	C2716	U2719	U2720	A2721	C2722	C2723	U2724	A2725	U2726	C2729	C2730	G2731	G2732	A2733	A2741	U2742	U2743	G2744	G2747		

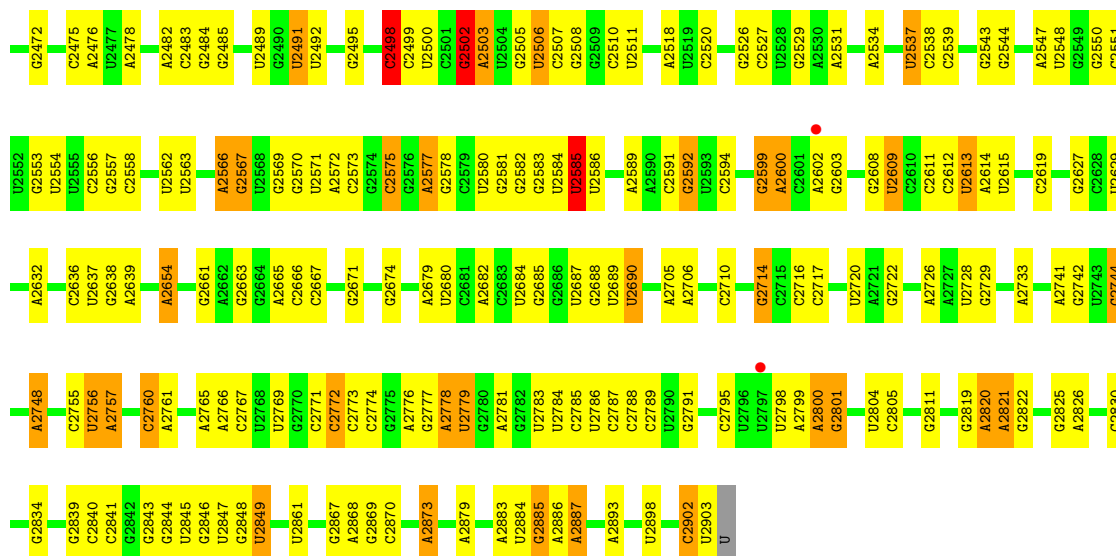


● Molecule 1: 23S rRNA

Chain GA:

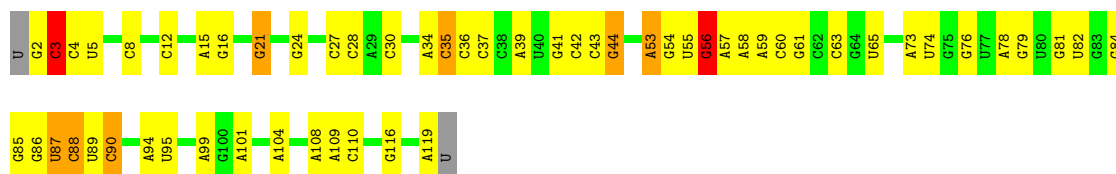


U2384	C2385	U2305	U2210	C2143	U2076	C1874	C1795	G1703	A1597	U1474	C1386	C1293	G1223	U1130
A2386	G2387	C2306	A2211	G2144	A2077	G1875	U1796	U1714	A1603	G1475	A1387	C1297	A1226	G1131
U2387	C2308	G2307	U2212	C2145	C2078	G1884	U1797	U1715	A1603	U1476	A1392	G1300	A1226	U1132
A2388	G2309	C2309	C2214	C2146	U2079	U1885	G1799	G1478	C1604	G1478	A1393	A1301	U1231	A1133
G2389	A2310	U2208	U2220	A2147	G2087	U1886	A1800	U1720	C1605	G1482	U1396	C1305	U1232	A1134
A2311	U2312	C2091	G2221	U2149	C2091	G1891	A1801	G1721	C1606	U1486	U1397	A1307	U1233	G1135
U2313	C2313	U2092	U2225	U2151	C2092	A1899	A1802	A1722	C1607	U1487	U1405	G1310	U1234	G1136
C2394	G2395	G2093	C2226	C2152	G2093	A1900	A1804	G1723	A1608	U1487	U1406	G1311	U1235	G1137
G2396	G2315	A2094	C2226	C2153	A2094	A1901	A1805	U1725	A1609	U1487	U1406	G1312	U1236	G1138
G2316	G2317	A2095	U2231	A2154	A2095	A1902	A1808	G1727	C1611	C1493	U1406	G1313	U1237	G1139
A2317	C2403	C2096	C2232	G2156	C2096	C1902	A1808	G1728	A1614	C1493	U1406	U1312	A1237	U1141
U2321	A2406	A2097	U2233	A2157	C2097	G1906	G1811	U1729	C1615	A1503	G1410	U1313	U1238	A1142
A2322	U2408	U2098	G2234	A	U2018	G1812	U1812	U1729	C1616	A1504	U1411	A1244	U1239	G1149
U2408	A2408	G2099	G2238	C	G2018	A1913	G1813	G1730	A1616	A1504	U1412	A1317	A1249	G1150
G2409	G2409	U2099	U2324	C	A2020	A1914	G1814	G1731	C1617	A1507	U1413	A1321	U1248	A1151
G2410	G2410	A2101	G2239	C	C2021	U1915	A1815	G1732	G1619	A1509	G1416	A1322	U1249	G1154
A2411	A2411	G2102	U2243	G	U2022	A1916	A1816	U1736	G1620	G1510	U1419	A1323	U1250	G1157
G2415	G2415	C2103	U2246	C	C2023	U1917	G1817	U1737	G1622	G1512	U1420	C1327	U1251	G1160
U2419	C2420	U2104	A2247	C	C2024	C1924	U1820	G1738	U1627	G1514	U1421	A1327	U1252	G1161
G2421	G2421	U2105	A2247	U	G2025	U1925	U1820	G1738	G1627	A1515	U1422	U1329	U1253	G1162
U2423	U2423	G2106	A2247	U	U2026	U1926	G1824	A1739	G1628	G1515	U1422	U1329	U1254	G1163
A2425	A2425	U2107	A2247	U	G2027	U1927	U1824	A1744	U1628	G1515	U1422	U1329	U1255	G1164
G2426	G2426	A2108	G2250	G	U2028	A1928	U1825	A1745	U1636	G1515	U1422	U1329	U1256	G1165
A2427	A2427	U2109	A2254	A	G2029	A1929	U1826	A1746	U1647	G1515	U1422	U1329	U1257	G1166
G2428	G2428	U2109	A2254	A	A2030	U1929	U1827	A1747	U1648	G1515	U1422	U1329	U1258	G1167
A2429	A2429	U2109	A2254	A	U2031	U1930	U1828	U1747	U1649	G1515	U1422	U1329	U1259	G1168
A2430	A2430	U2109	A2254	A	U2032	U1931	U1829	U1747	U1649	G1515	U1422	U1329	U1260	G1169
G2433	G2433	U2109	A2254	A	U2033	U1932	U1830	U1747	U1649	G1515	U1422	U1329	U1261	G1170
A2435	A2435	U2109	A2254	A	U2034	U1933	U1831	U1747	U1649	G1515	U1422	U1329	U1262	G1171
G2436	G2436	U2109	A2254	A	U2035	U1934	U1832	U1747	U1649	G1515	U1422	U1329	U1263	G1172
U2441	U2441	U2109	A2254	A	U2036	U1935	U1833	U1747	U1649	G1515	U1422	U1329	U1264	G1173
G2442	G2442	U2109	A2254	A	U2037	U1936	U1834	U1747	U1649	G1515	U1422	U1329	U1265	G1174
A2443	A2443	U2109	A2254	A	U2038	U1937	U1835	U1747	U1649	G1515	U1422	U1329	U1266	G1175
G2447	G2447	U2109	A2254	A	U2039	U1938	U1836	U1747	U1649	G1515	U1422	U1329	U1267	G1176
U2448	U2448	U2109	A2254	A	U2040	U1939	U1837	U1747	U1649	G1515	U1422	U1329	U1268	G1177
G2450	G2450	U2109	A2254	A	U2041	U1940	U1838	U1747	U1649	G1515	U1422	U1329	U1269	G1178
A2451	A2451	U2109	A2254	A	U2042	U1941	U1839	U1747	U1649	G1515	U1422	U1329	U1270	G1179
G2452	G2452	U2109	A2254	A	U2043	U1942	U1840	U1747	U1649	G1515	U1422	U1329	U1271	G1180
U2453	U2453	U2109	A2254	A	U2044	U1943	U1841	U1747	U1649	G1515	U1422	U1329	U1272	G1181
G2454	G2454	U2109	A2254	A	U2045	U1944	U1842	U1747	U1649	G1515	U1422	U1329	U1273	G1182
U2457	U2457	U2109	A2254	A	U2046	U1945	U1843	U1747	U1649	G1515	U1422	U1329	U1274	G1183
A2461	A2461	U2109	A2254	A	U2047	U1946	U1844	U1747	U1649	G1515	U1422	U1329	U1275	G1184
G2465	G2465	U2109	A2254	A	U2048	U1947	U1845	U1747	U1649	G1515	U1422	U1329	U1276	G1185
U2467	U2467	U2109	A2254	A	U2049	U1948	U1846	U1747	U1649	G1515	U1422	U1329	U1277	G1186
A2469	A2469	U2109	A2254	A	U2050	U1949	U1847	U1747	U1649	G1515	U1422	U1329	U1278	G1187
G2470	G2470	U2109	A2254	A	U2051	U1950	U1848	U1747	U1649	G1515	U1422	U1329	U1279	G1188
U2471	U2471	U2109	A2254	A	U2052	U1951	U1849	U1747	U1649	G1515	U1422	U1329	U1280	G1189
A2472	A2472	U2109	A2254	A	U2053	U1952	U1850	U1747	U1649	G1515	U1422	U1329	U1281	G1190
G2473	G2473	U2109	A2254	A	U2054	U1953	U1851	U1747	U1649	G1515	U1422	U1329	U1282	G1191
U2474	U2474	U2109	A2254	A	U2055	U1954	U1852	U1747	U1649	G1515	U1422	U1329	U1283	G1192
A2475	A2475	U2109	A2254	A	U2056	U1955	U1853	U1747	U1649	G1515	U1422	U1329	U1284	G1193
G2476	G2476	U2109	A2254	A	U2057	U1956	U1854	U1747	U1649	G1515	U1422	U1329	U1285	G1194
U2477	U2477	U2109	A2254	A	U2058	U1957	U1855	U1747	U1649	G1515	U1422	U1329	U1286	G1195
A2478	A2478	U2109	A2254	A	U2059	U1958	U1856	U1747	U1649	G1515	U1422	U1329	U1287	G1196
G2479	G2479	U2109	A2254	A	U2060	U1959	U1857	U1747	U1649	G1515	U1422	U1329	U1288	G1197
U2480	U2480	U2109	A2254	A	U2061	U1960	U1858	U1747	U1649	G1515	U1422	U1329	U1289	G1198
A2481	A2481	U2109	A2254	A	U2062	U1961	U1859	U1747	U1649	G1515	U1422	U1329	U1290	G1199
G2482	G2482	U2109	A2254	A	U2063	U1962	U1860	U1747	U1649	G1515	U1422	U1329	U1291	G1200
U2483	U2483	U2109	A2254	A	U2064	U1963	U1861	U1747	U1649	G1515	U1422	U1329	U1292	G1201
A2484	A2484	U2109	A2254	A	U2065	U1964	U1862	U1747	U1649	G1515	U1422	U1329	U1293	G1202
G2485	G2485	U2109	A2254	A	U2066	U1965	U1863	U1747	U1649	G1515	U1422	U1329	U1294	G1203
U2486	U2486	U2109	A2254	A	U2067	U1966	U1864	U1747	U1649	G1515	U1422	U1329	U1295	G1204
A2487	A2487	U2109	A2254	A	U2068	U1967	U1865	U1747	U1649	G1515	U1422	U1329	U1296	G1205
G2488	G2488	U2109	A2254	A	U2069	U1968	U1866	U1747	U1649	G1515	U1422	U1329	U1297	G1206
U2489	U2489	U2109	A2254	A	U2070	U1969	U1867	U1747	U1649	G1515	U1422	U1329	U1298	G1207
A2490	A2490	U2109	A2254	A	U2071	U1970	U1868	U1747	U1649	G1515	U1422	U1329	U1299	G1208
G2491	G2491	U2109	A2254	A	U2072	U1971	U1869	U1747	U1649	G1515	U1422	U1329	U1300	G1209
U2492	U2492	U2109	A2254	A	U2073	U1972	U1870	U1747	U1649	G1515	U1422	U1329	U1301	G1210
A2493	A2493	U2109	A2254	A	U2074	U1973	U1871	U1747	U1649	G1515	U1422	U1329	U1302	G1211
G2494	G2494	U2109	A2254	A	U2075	U1974	U1872	U1747	U1649	G1515	U1422	U1329	U1303	G1212
U2495	U2495	U2109	A2254	A	U2076	U1975	U1873	U1747	U1649	G1515	U1422	U1329	U1304	G1213
A2496	A2496	U2109	A2254	A	U2077	U1976	U1874	U1747	U1649	G1515	U1422	U1329	U1305	G1214
G2497	G2497	U2109	A2254	A	U2078	U1977	U1875	U1747	U1649	G1515	U1422	U1329	U1306	G1215
U2498	U2498	U2109	A2254	A	U2079	U1978	U1876	U1747	U1649	G1515	U1422	U1329	U1307	G1216
A2499	A2499	U2109	A2254	A	U2080	U1979	U1877	U1747	U1649	G1515	U1422	U1329	U1308	G1217
G2500	G2500	U2109	A2254	A	U2081	U1980	U1878	U1747	U1649	G1515	U1422	U1329	U1309	G1218
U2501	U2501	U2109	A2254	A	U2082	U1981	U1879	U1747	U1649	G1515	U1422	U1329	U1310	G1219
A2502	A2502	U2109	A2254	A	U2083	U1982	U1880	U1747	U1649	G1515	U1422	U1329	U1311	G1220
G2503	G2503	U2109	A2254	A	U2084	U1983	U1881	U1747	U1649	G1515	U1422	U1329	U1312	G1221
U2504	U2504	U2109	A2254	A	U2085	U1984	U1882	U1747	U1649	G1515	U1422	U1329	U1313	G1222
A2505	A2505	U2109	A2254	A	U2086	U1985	U1883	U1747	U1649	G1515	U1422	U1329	U1314	G1223
G2506	G2506	U2109	A2254	A	U2087	U1986	U1884	U1747	U1649	G1515	U1422	U1329	U1315	G1224
U2507	U2507	U2109	A2254	A	U2088	U1987	U1885	U1747	U1649	G1515	U1422	U1329	U1316	G1225
A2508	A2508	U2109	A2254	A	U2089	U1988	U1886	U1747	U1649	G1515	U1422	U1329	U1317	G1226
G2509	G2509	U2109	A2254	A	U2090	U1989	U1887	U1747						



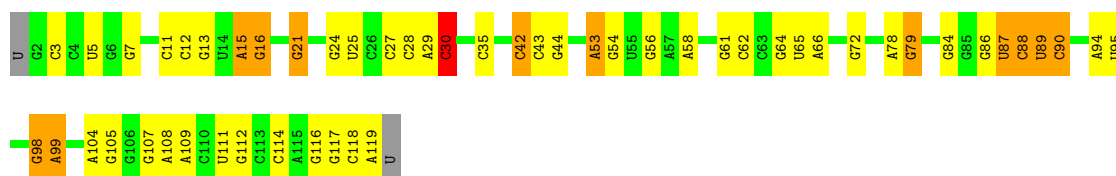
• Molecule 2: 5S rRNA

Chain AB:



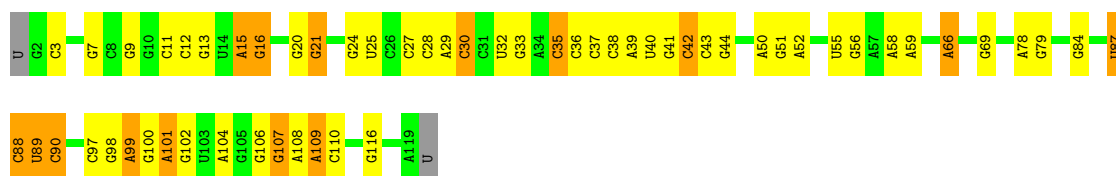
• Molecule 2: 5S rRNA

Chain CB:



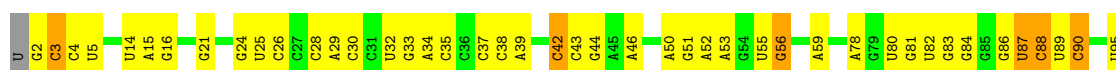
• Molecule 2: 5S rRNA

Chain EB:



• Molecule 2: 5S rRNA

Chain GB:





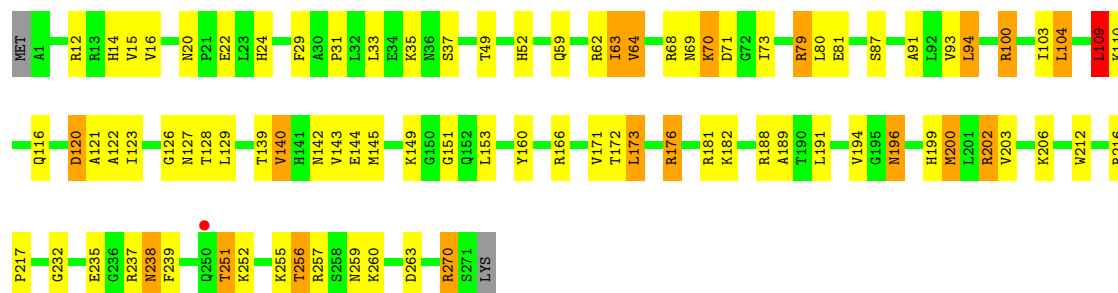
- Molecule 3: 50S ribosomal protein L2

Chain AC:



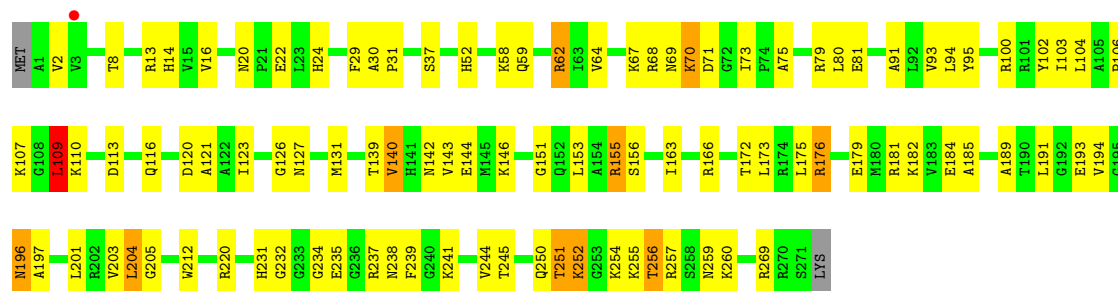
- Molecule 3: 50S ribosomal protein L2

Chain CC:



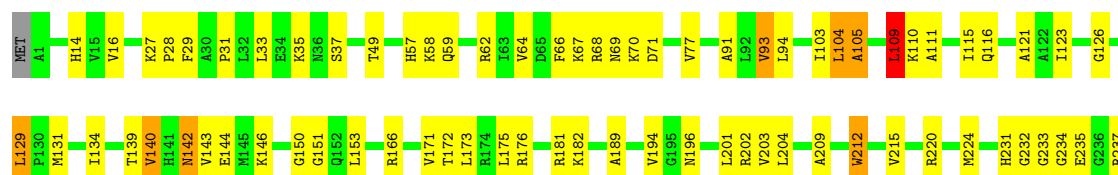
- Molecule 3: 50S ribosomal protein L2

Chain EC:



- Molecule 3: 50S ribosomal protein L2

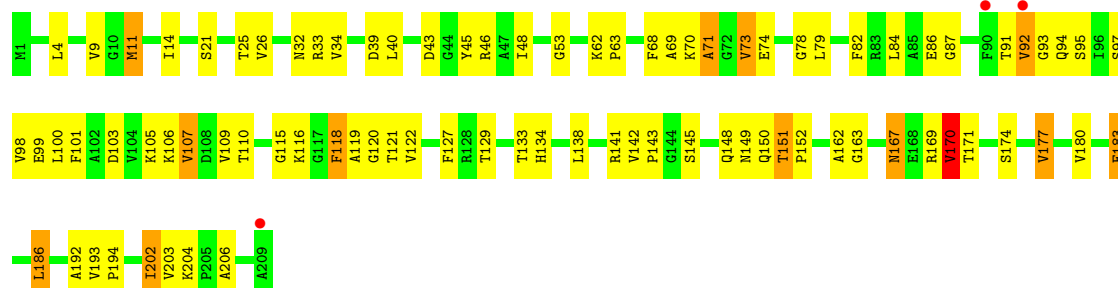
Chain GC:





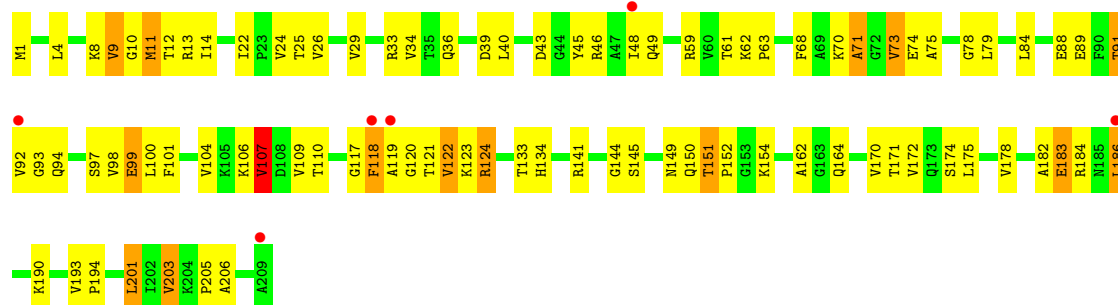
• Molecule 4: 50S ribosomal protein L3

Chain AD:



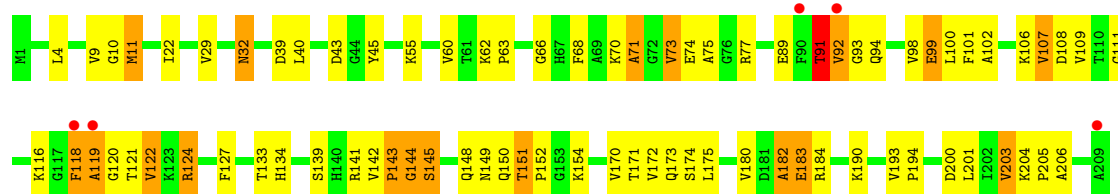
• Molecule 4: 50S ribosomal protein L3

Chain CD:



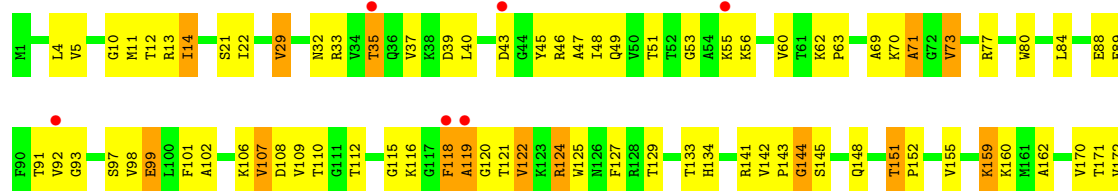
• Molecule 4: 50S ribosomal protein L3

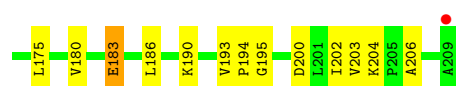
Chain ED:



• Molecule 4: 50S ribosomal protein L3

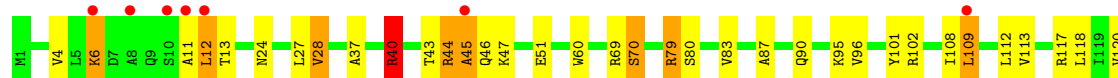
Chain GD:





- Molecule 5: 50S ribosomal protein L4

Chain AE:



- Molecule 5: 50S ribosomal protein L4

Chain CE:



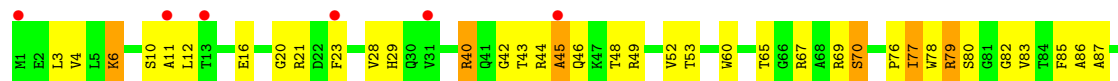
- Molecule 5: 50S ribosomal protein L4

Chain EE:



- Molecule 5: 50S ribosomal protein L4

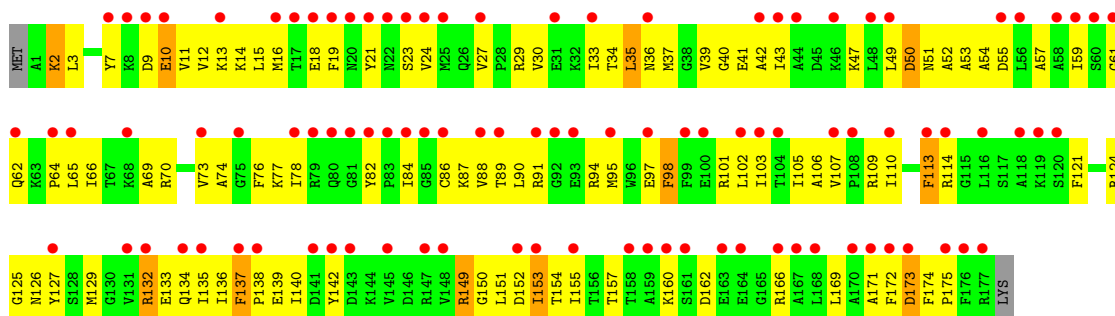
Chain GE:



- Molecule 6: 50S ribosomal protein L5

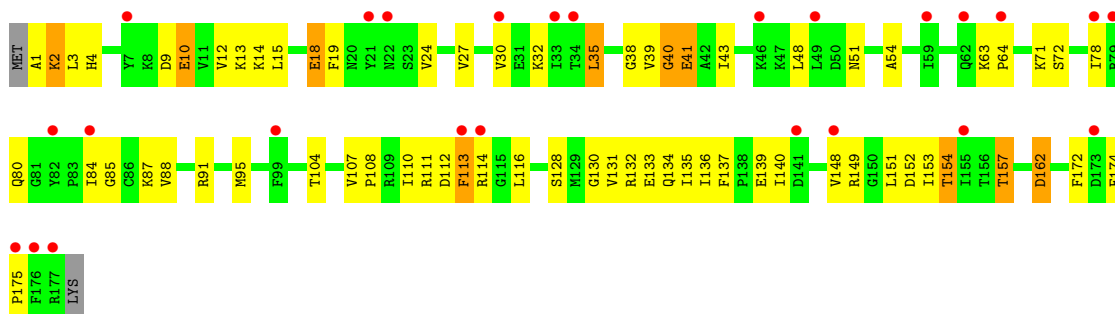
Chain AF:





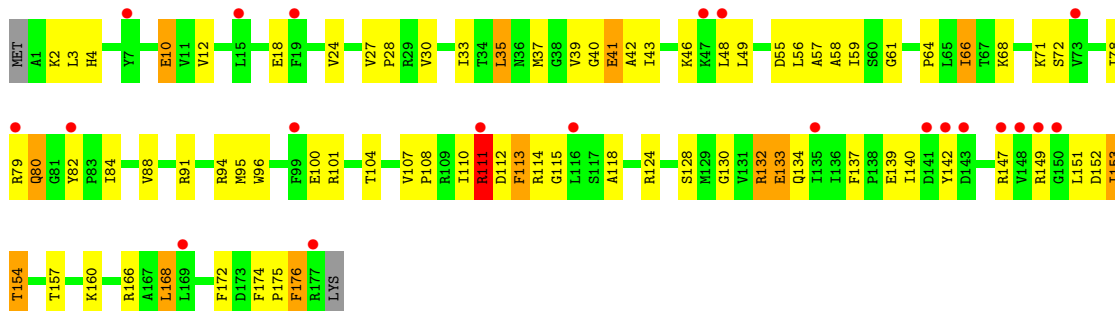
- Molecule 6: 50S ribosomal protein L5

Chain CF:



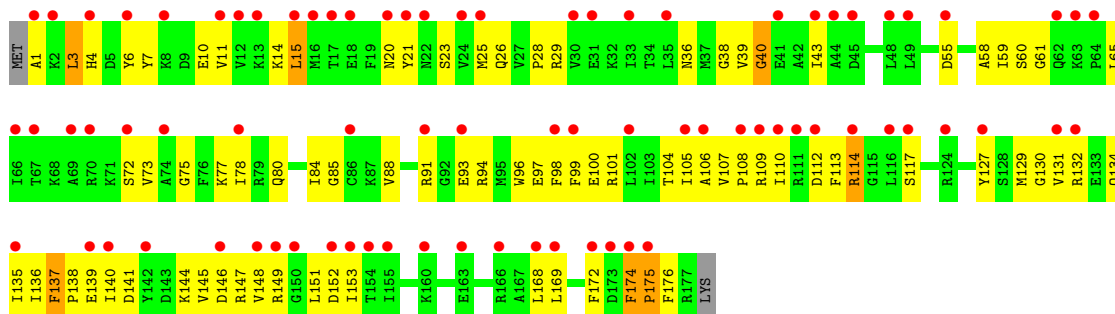
- Molecule 6: 50S ribosomal protein L5

Chain EF:



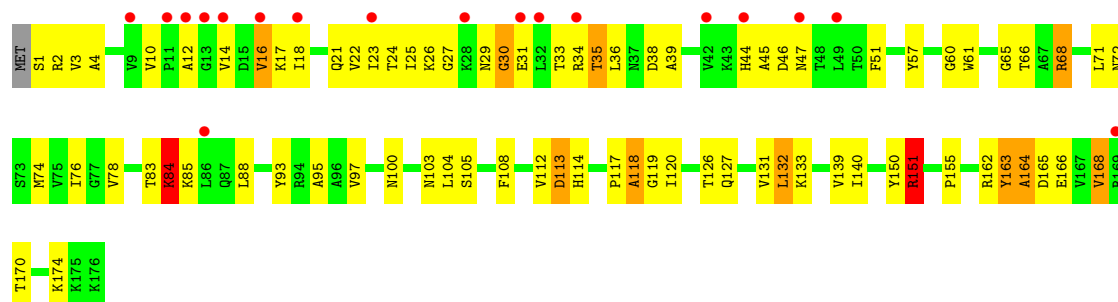
- Molecule 6: 50S ribosomal protein L5

Chain GF:



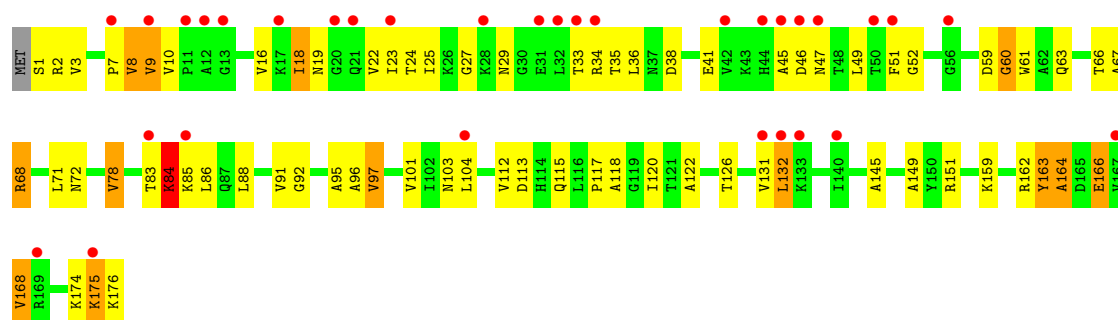
- Molecule 7: 50S ribosomal protein L6

Chain AG:



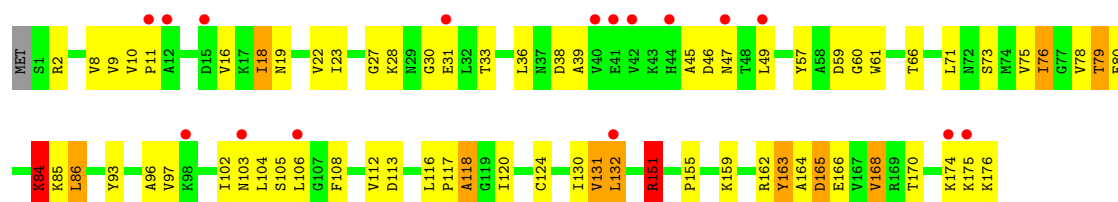
- Molecule 7: 50S ribosomal protein L6

Chain CG:



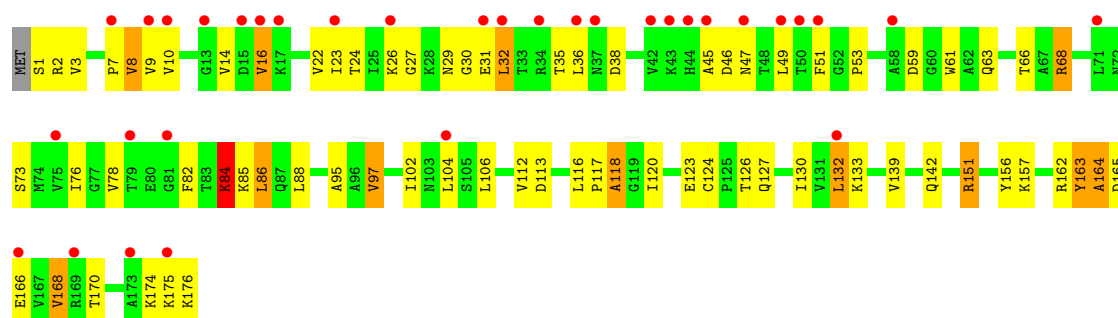
- Molecule 7: 50S ribosomal protein L6

Chain EG:



- Molecule 7: 50S ribosomal protein L6

Chain GG:



- Molecule 8: 50S ribosomal protein L9

Chain AH:



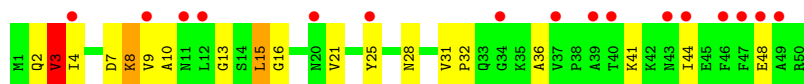
- Molecule 8: 50S ribosomal protein L9

Chain CH:



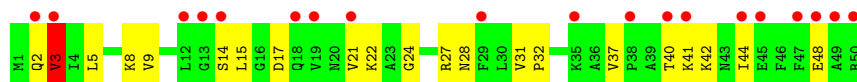
- Molecule 8: 50S ribosomal protein L9

Chain EH:



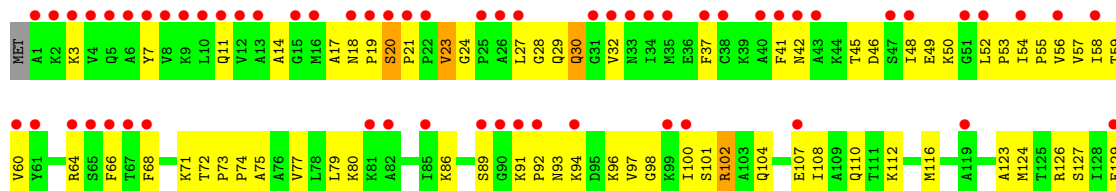
- Molecule 8: 50S ribosomal protein L9

Chain GH:



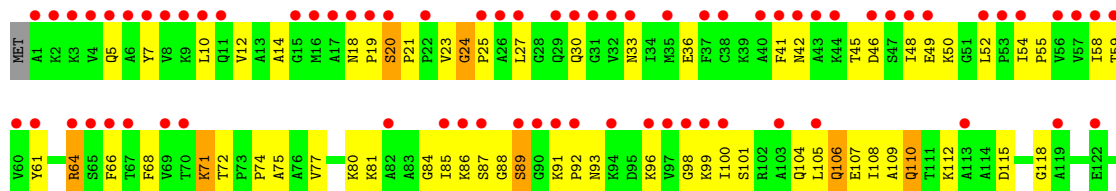
- Molecule 9: 50S ribosomal protein L11

Chain AI:

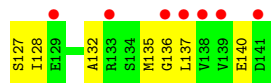


- Molecule 9: 50S ribosomal protein L11

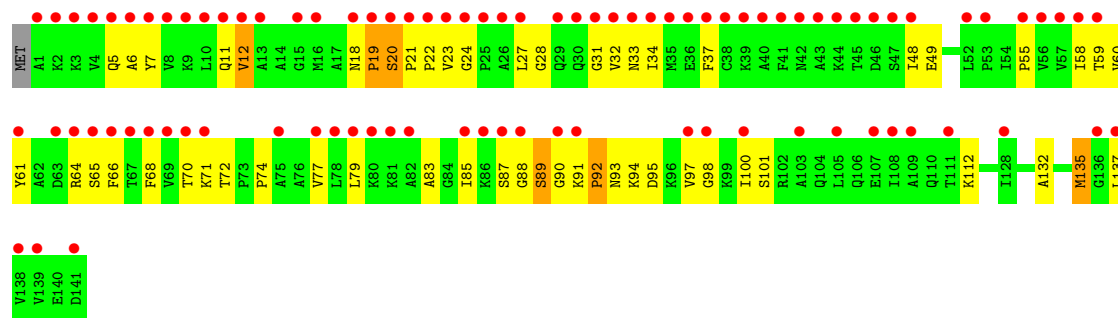
Chain CI:



- Molecule 9: 50S ribosomal protein L11

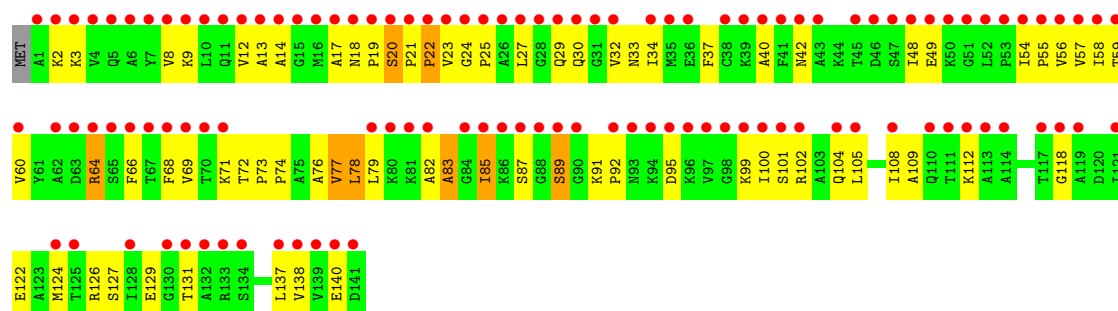


Chain EI:



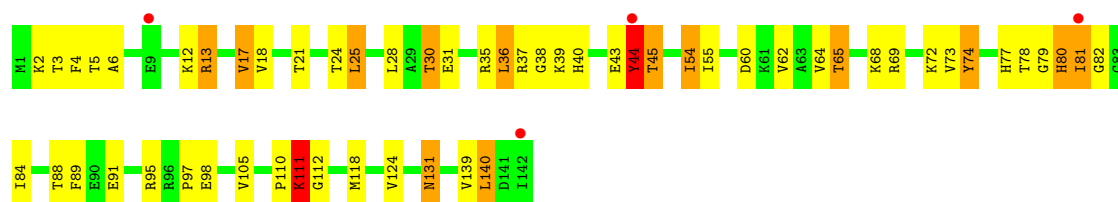
- Molecule 9: 50S ribosomal protein L11

Chain GI:



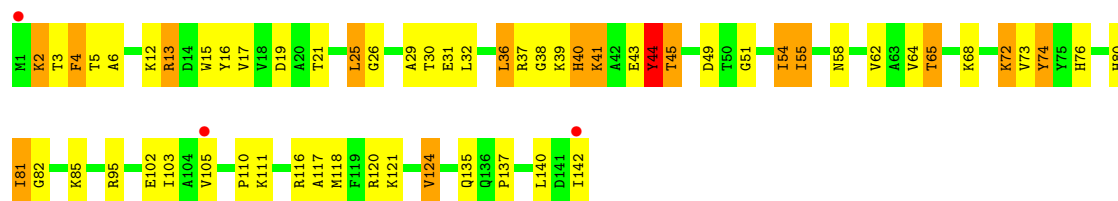
- Molecule 10: 50S ribosomal protein L13

Chain AJ:



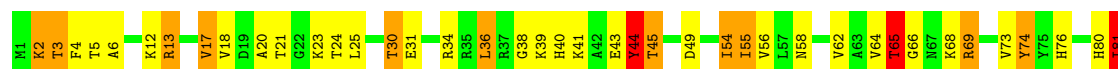
- Molecule 10: 50S ribosomal protein L13

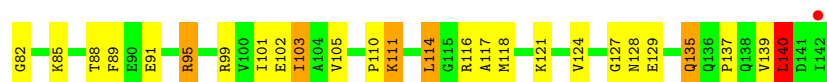
Chain CJ:



- Molecule 10: 50S ribosomal protein L13

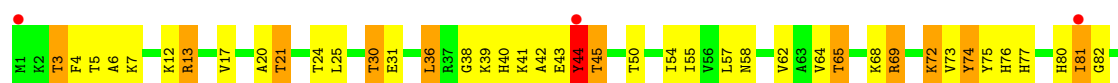
Chain EJ:





- Molecule 10: 50S ribosomal protein L13

Chain GJ:



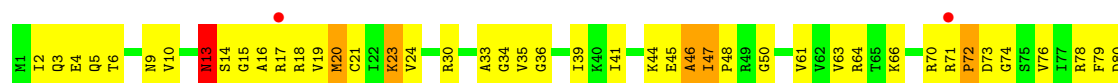
- Molecule 11: 50S ribosomal protein L14

Chain AK:



- Molecule 11: 50S ribosomal protein L14

Chain CK:



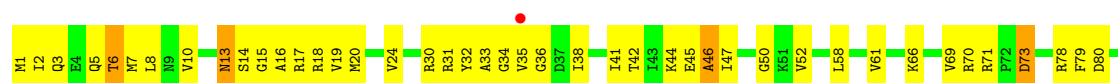
- Molecule 11: 50S ribosomal protein L14

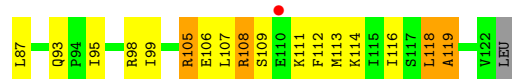
Chain EK:



- Molecule 11: 50S ribosomal protein L14

Chain GK:





- Molecule 12: 50S ribosomal protein L15

Chain AL:



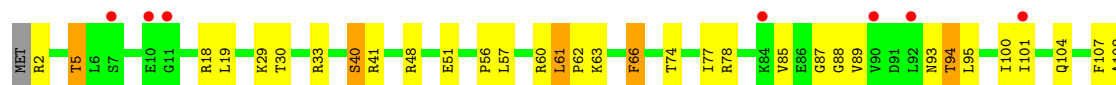
- Molecule 12: 50S ribosomal protein L15

Chain CL:



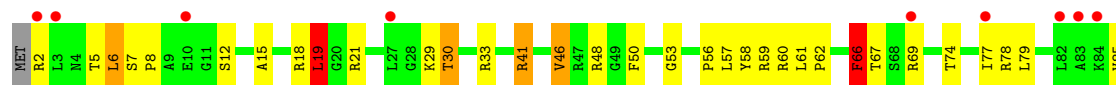
- Molecule 12: 50S ribosomal protein L15

Chain EL:



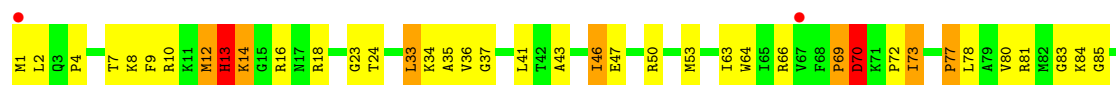
- Molecule 12: 50S ribosomal protein L15

Chain GL:



- Molecule 13: 50S ribosomal protein L16

Chain AM:





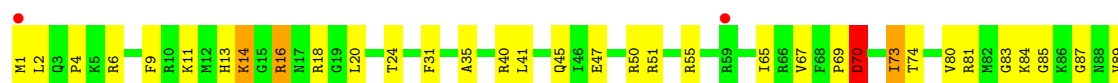
- Molecule 13: 50S ribosomal protein L16

Chain CM:



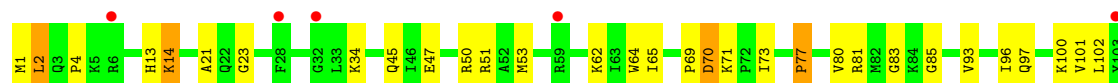
- Molecule 13: 50S ribosomal protein L16

Chain EM:



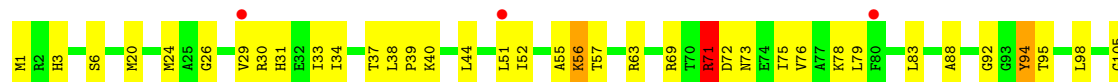
- Molecule 13: 50S ribosomal protein L16

Chain GM:



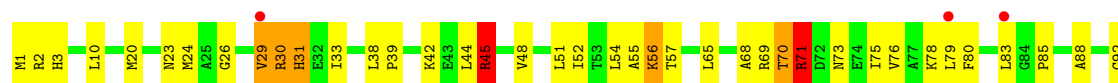
- Molecule 14: 50S ribosomal protein L17

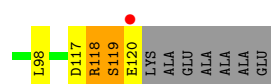
Chain AN:



- Molecule 14: 50S ribosomal protein L17

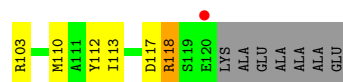
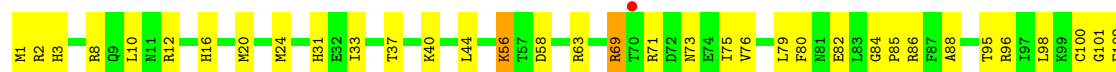
Chain CN:





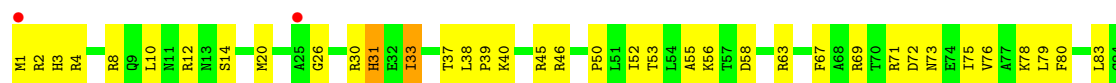
- Molecule 14: 50S ribosomal protein L17

Chain EN:



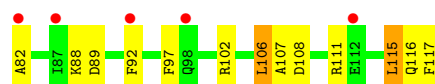
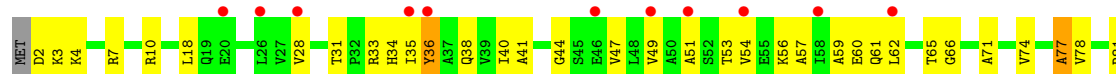
- Molecule 14: 50S ribosomal protein L17

Chain GN:



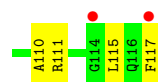
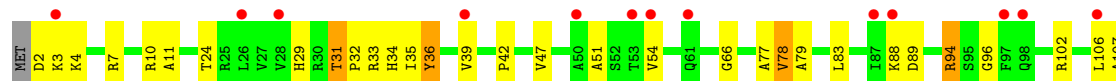
- Molecule 15: 50S ribosomal protein L18

Chain AO:



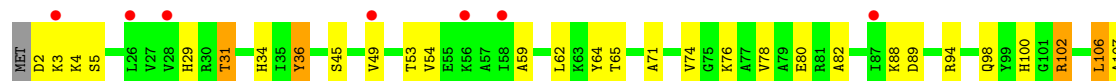
- Molecule 15: 50S ribosomal protein L18

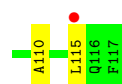
Chain CO:



- Molecule 15: 50S ribosomal protein L18

Chain EO:





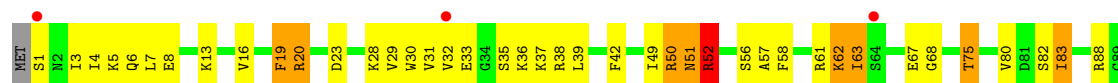
- Molecule 15: 50S ribosomal protein L18

Chain GO:



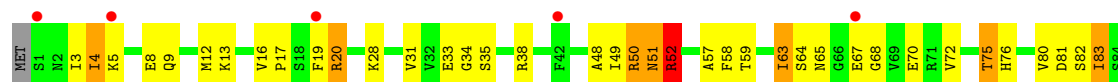
- Molecule 16: 50S ribosomal protein L19

Chain AP:



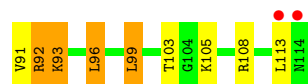
- Molecule 16: 50S ribosomal protein L19

Chain CP:



- Molecule 16: 50S ribosomal protein L19

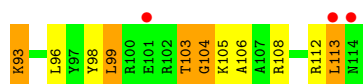
Chain EP:



- Molecule 16: 50S ribosomal protein L19

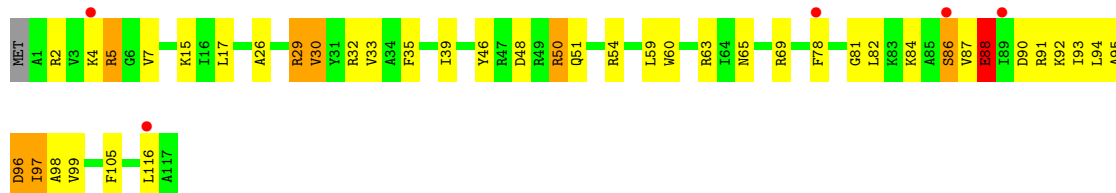
Chain GP:





- Molecule 17: 50S ribosomal protein L20

Chain AQ:



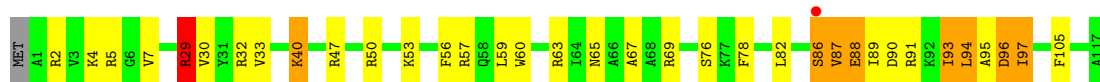
- Molecule 17: 50S ribosomal protein L20

Chain CQ:



- Molecule 17: 50S ribosomal protein L20

Chain EQ:



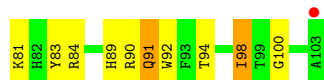
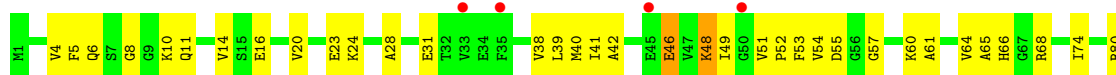
- Molecule 17: 50S ribosomal protein L20

Chain GQ:



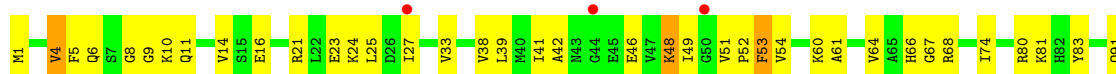
- Molecule 18: 50S ribosomal protein L21

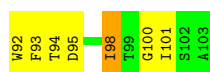
Chain AR:



- Molecule 18: 50S ribosomal protein L21

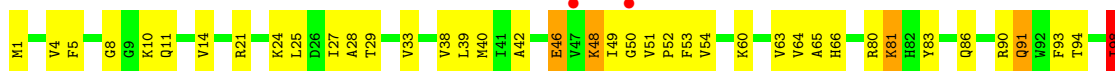
Chain CR:





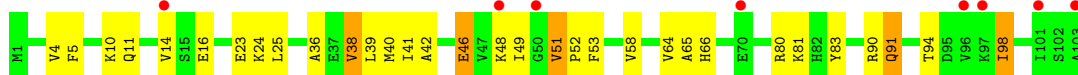
- Molecule 18: 50S ribosomal protein L21

Chain ER:



- Molecule 18: 50S ribosomal protein L21

Chain GR:



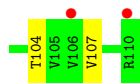
- Molecule 19: 50S ribosomal protein L22

Chain AS:



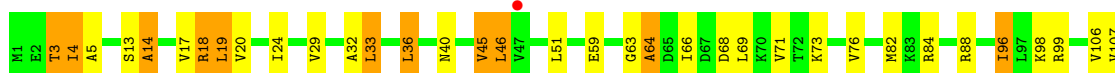
- Molecule 19: 50S ribosomal protein L22

Chain CS:



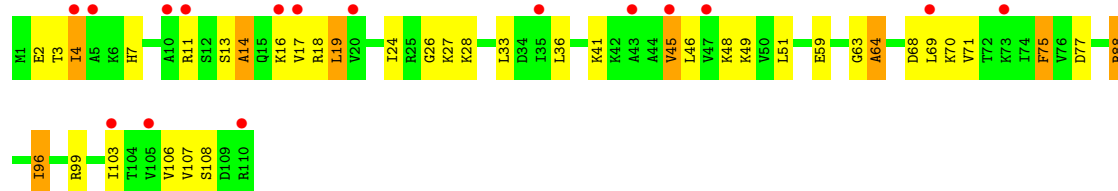
- Molecule 19: 50S ribosomal protein L22

Chain ES:



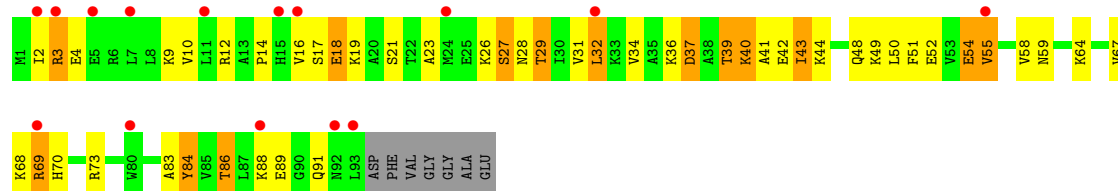
- Molecule 19: 50S ribosomal protein L22

Chain GS:



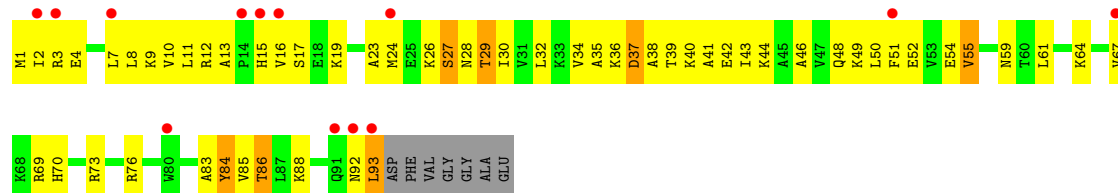
- Molecule 20: 50S ribosomal protein L23

Chain AT:



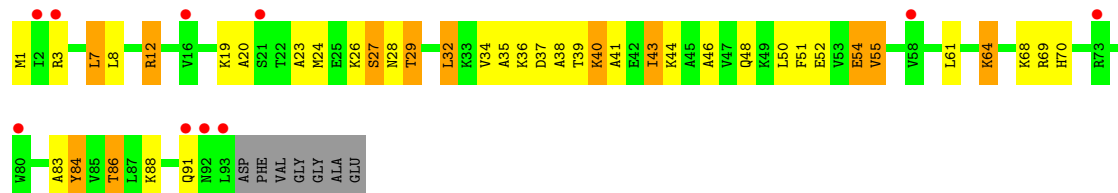
- Molecule 20: 50S ribosomal protein L23

Chain CT:



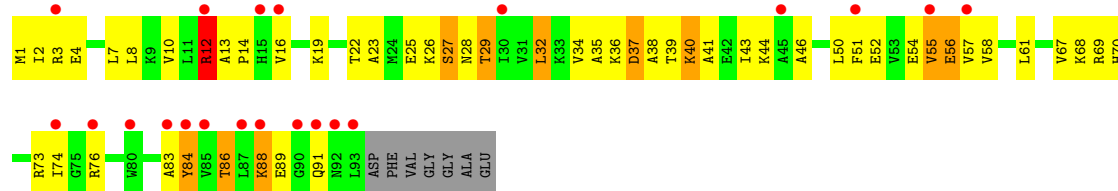
- Molecule 20: 50S ribosomal protein L23

Chain ET:



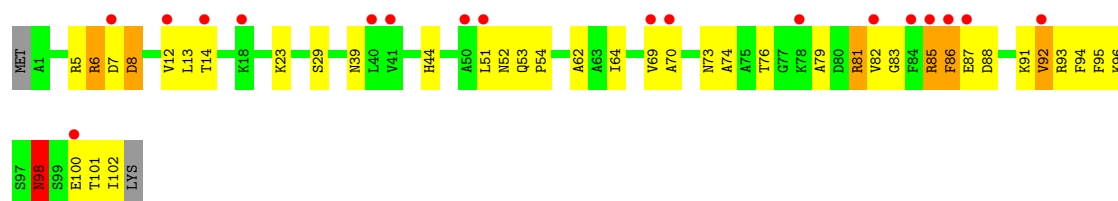
- Molecule 20: 50S ribosomal protein L23

Chain GT:



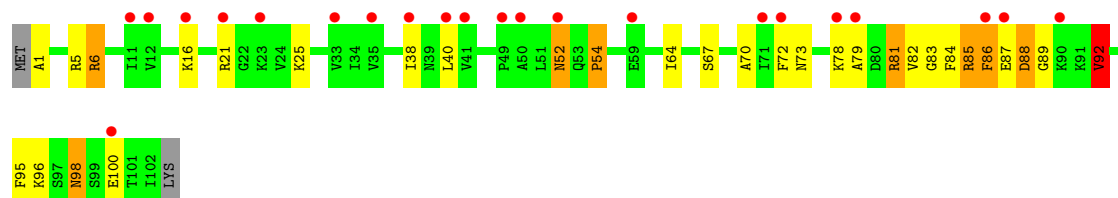
- Molecule 21: 50S ribosomal protein L24

Chain AU:



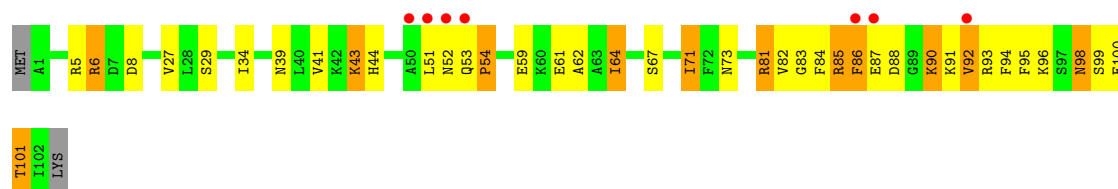
- Molecule 21: 50S ribosomal protein L24

Chain CU:



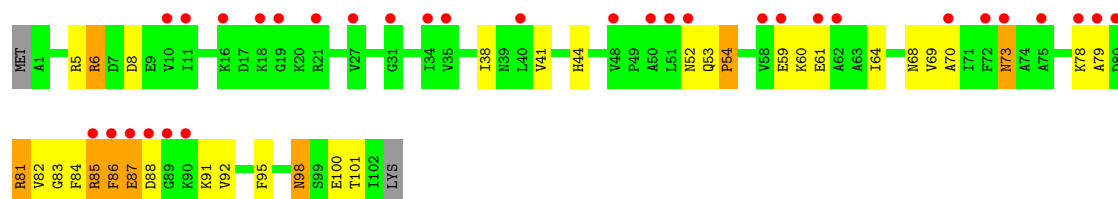
- Molecule 21: 50S ribosomal protein L24

Chain EU:



- Molecule 21: 50S ribosomal protein L24

Chain GU:



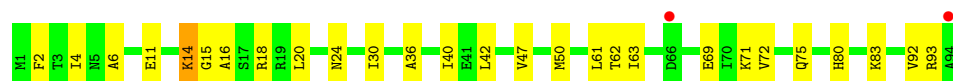
- Molecule 22: 50S ribosomal protein L25

Chain AV:



- Molecule 22: 50S ribosomal protein L25

Chain CV:



- Molecule 22: 50S ribosomal protein L25

M1	F2	A6	R9	Q12	G13	K14	N24	K25	F26	I40	D43	M50	Q51	E55	F56	V64	V65	D66	G67	K68	E69	I70	K71	V72	Q75	H80	K83	V92	R93	A94
----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

- Chain GV:

A horizontal bar chart showing the distribution of 1000 samples across 100 categories. The categories are labeled M1 through Y94. The bars are colored in a repeating pattern of yellow, green, and red. The heights of the bars vary, representing the frequency of each category. Red dots are placed above some bars, indicating specific values or thresholds.

- Chain AW:

MET	ALA	HIS	LYS	LYS	ALA	G6	G7	S8	T9	R10	M11
D14	S15	E16	A17	K18	R19	L20	L20	G21	G22	G23	R24
F25	G26	G27	G27	E28	S29	V30	L31	S34	I35	I36	I37
I38	I38	Q39	R40	R40	G41	T42	K43	F44	H45	A46	G47
L48	N49	V50	G51	D55	H56	T57	L58	F59	A60	D63	G64

K65	V66	K67	F68	E69	V70	K71	G72	P73	K74	N75	R76	K77	F78	I79	S80	I81	E84
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

- Chain CW:

MET	ALA	HIS	LYS	LYS	ALA	G6	G7	S8	T9	R10	M11	D14	S15	E16	A17	K18	R19	V22	K23	R24	F25	S29	V30	L31	S34	I35	I36	V37	R38	Q39	R40	G41	K42	K43	F44	H45	A46	G47	A48	N49	V50	G51	G52	G53	A60	K61	A62	D63	G64	G65
-----	-----	-----	-----	-----	-----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

- Chain EW:

MET
HIS
ALA
LYS
LYS
ALA
G6
G7
S8
T9
R10
N11
D14
S15
E16
A17
K18
R19
L20
G21
V22
K23
R24
F25
E28
S29
V30
S34
I35
I36
V37
R38
Q39
R40
G41
T42
K43
F44
H45
A46
G47
A48
N49
V50
G51
C52
D55
H56
T57
L58
F59
A60
K61
A62
D63
G64

Position	Number of Mutations
K65	1
V66	2
K67	1
F68	1
E69	2
V70	3
K71	1
G72	1
P73	4
K74	1
N75	4
R76	4
K77	2
F78	1
I79	2
S80	1
I81	1
E84	4

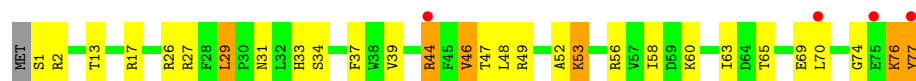
- Chain GW:

MET
ALA
HIS
LVS
LYS
ALA
G6
S8
T9
R10
D14
S15
E16
A17
K18
R19
L20
G21
V22
K23
R24
F25
E28
S29
V30
L31
S34
I35
L36
V37
K38
Q39
R40
R40
G41
L42
K43
F44
H45
A46
N49
V50
G51
C52
G53
R54
D55
H56
T57
L58
F59
A60
K61
A62
D63
G64

Position	Number of Mutations
K65	1
V66	1
K67	1
F68	1
E69	1
V70	2
K71	1
G72	1
P73	1
K74	1
N75	1
R76	3
K77	4
F78	1
I79	1
S80	4
I81	1
E84	5

- Molecule 24: 50S ribosomal protein L28

Chain AX: 



- Molecule 24: 50S ribosomal protein L28

Chain CX: 



- Molecule 24: 50S ribosomal protein L28

Chain EX: 



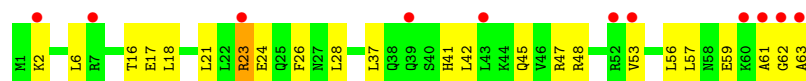
- Molecule 24: 50S ribosomal protein L28

Chain GX: 



- Molecule 25: 50S ribosomal protein L29

Chain AY: 



- Molecule 25: 50S ribosomal protein L29

Chain CY: 



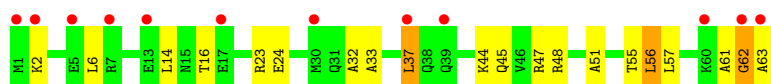
- Molecule 25: 50S ribosomal protein L29

Chain EY: 



- Molecule 25: 50S ribosomal protein L29

Chain GY: 



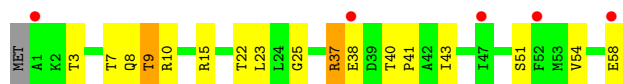
- Molecule 26: 50S ribosomal protein L30

Chain AZ:



- Molecule 26: 50S ribosomal protein L30

Chain CZ:



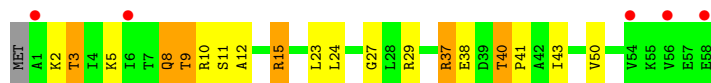
- Molecule 26: 50S ribosomal protein L30

Chain EZ:



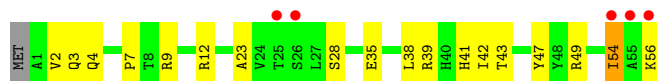
- Molecule 26: 50S ribosomal protein L30

Chain GZ:



- Molecule 27: 50S ribosomal protein L32

Chain A0:



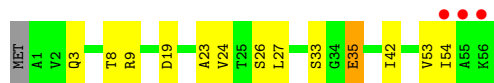
- Molecule 27: 50S ribosomal protein L32

Chain C0:



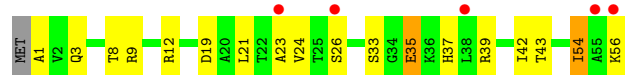
- Molecule 27: 50S ribosomal protein L32

Chain E0:



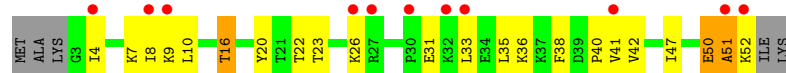
- Molecule 27: 50S ribosomal protein L32

Chain G0: 



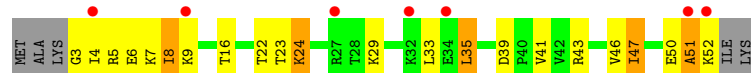
- Molecule 28: 50S ribosomal protein L33

Chain A1: 



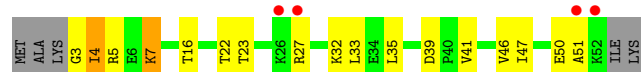
- Molecule 28: 50S ribosomal protein L33

Chain C1: 



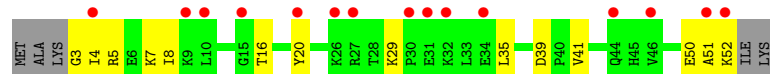
- Molecule 28: 50S ribosomal protein L33

Chain E1: 



- Molecule 28: 50S ribosomal protein L33

Chain G1: 



- Molecule 29: 50S ribosomal protein L34

Chain A2: 



- Molecule 29: 50S ribosomal protein L34

Chain C2: 



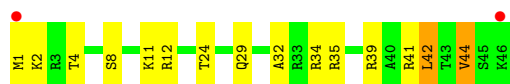
- Molecule 29: 50S ribosomal protein L34

Chain E2: 



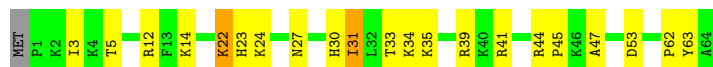
- Molecule 29: 50S ribosomal protein L34

Chain G2: 



- Molecule 30: 50S ribosomal protein L35

Chain A3: 



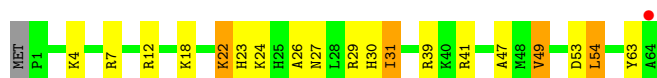
- Molecule 30: 50S ribosomal protein L35

Chain C3: 



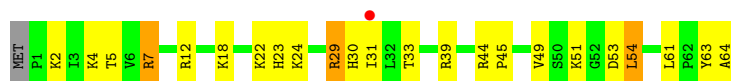
- Molecule 30: 50S ribosomal protein L35

Chain E3: 



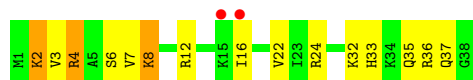
- Molecule 30: 50S ribosomal protein L35

Chain G3: 



- Molecule 31: 50S ribosomal protein L36

Chain A4: 



- Molecule 31: 50S ribosomal protein L36

Chain C4: 



- Molecule 31: 50S ribosomal protein L36

Chain E4: 



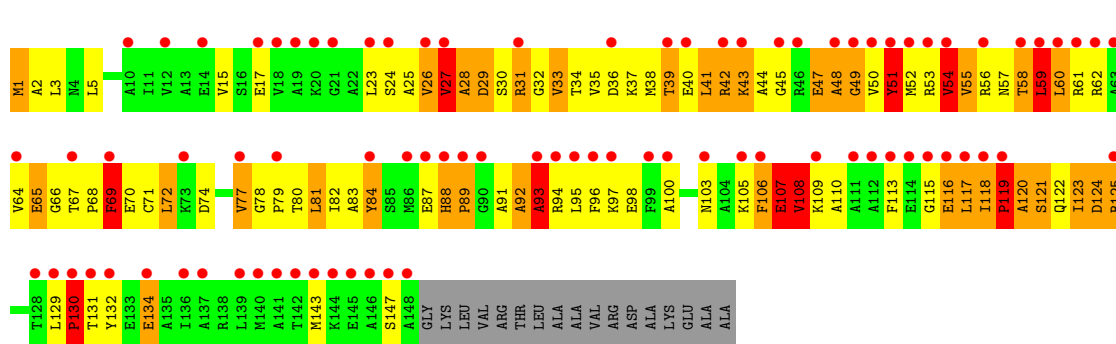
- Molecule 31: 50S ribosomal protein L36

Chain G4:



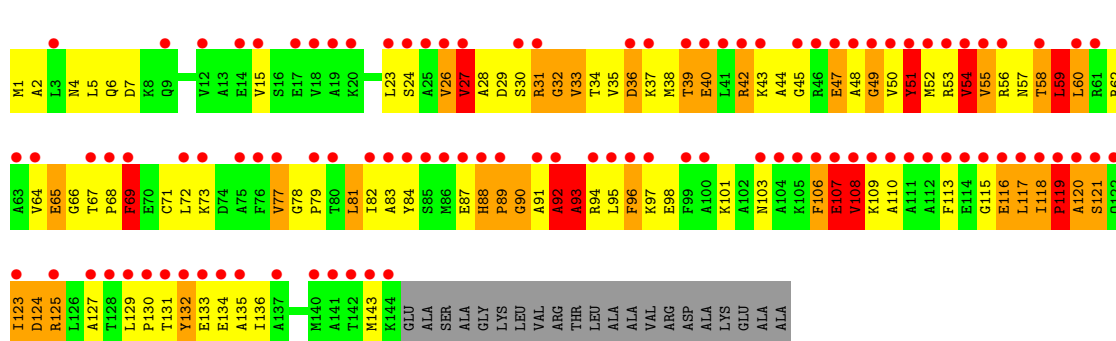
- Molecule 32: 50S ribosomal protein L10

Chain A5:



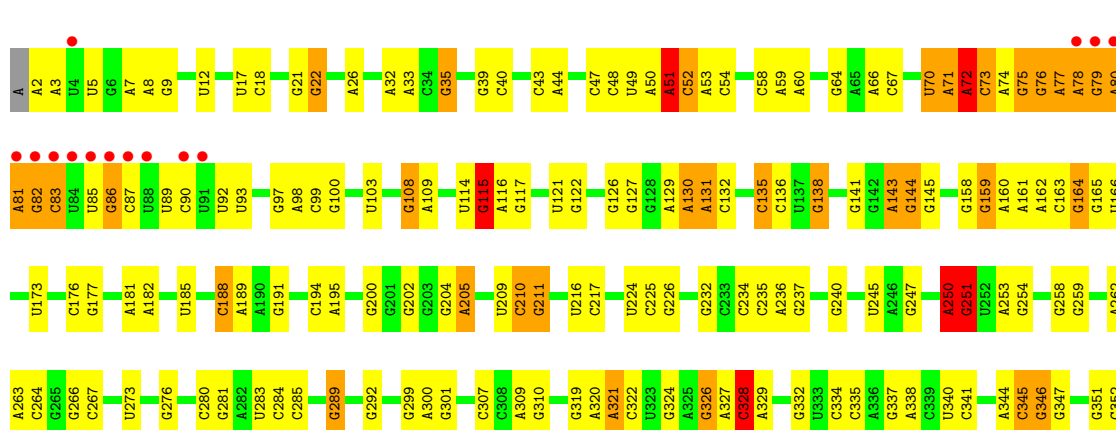
- Molecule 32: 50S ribosomal protein L10

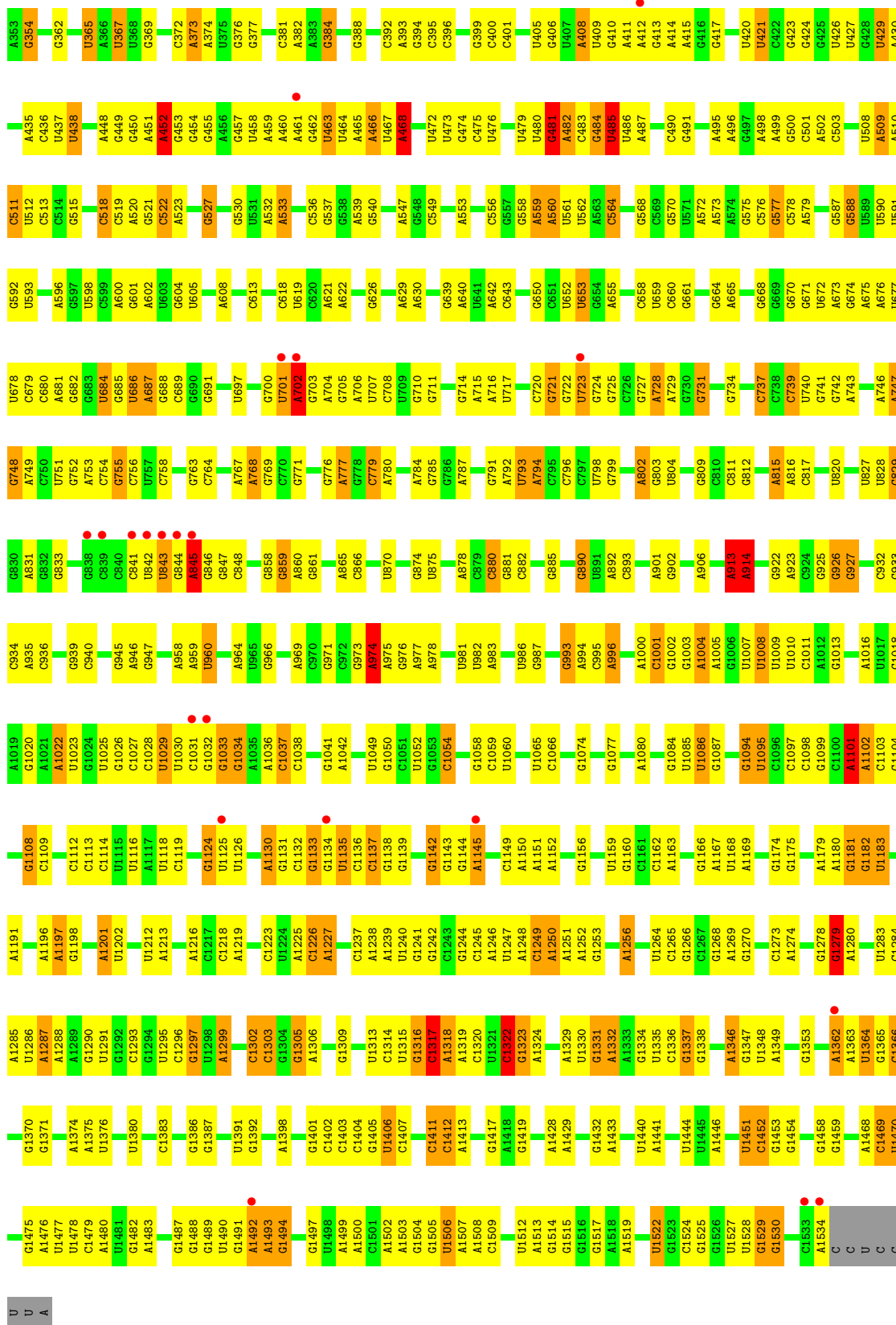
Chain E5:



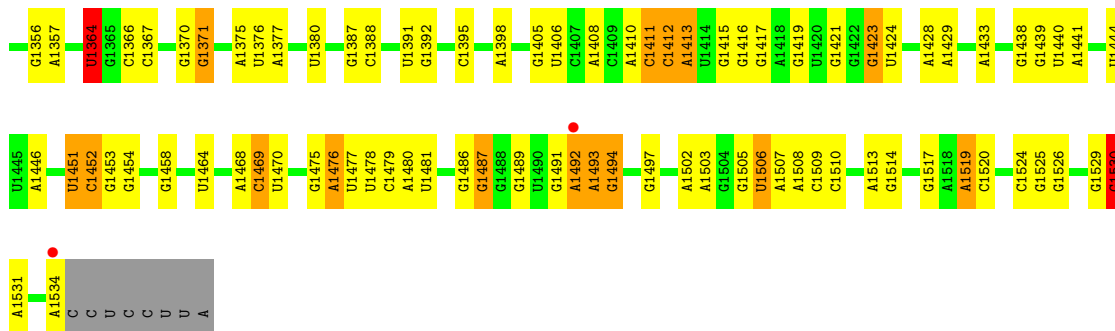
- Molecule 33: 16S rRNA

Chain BA:



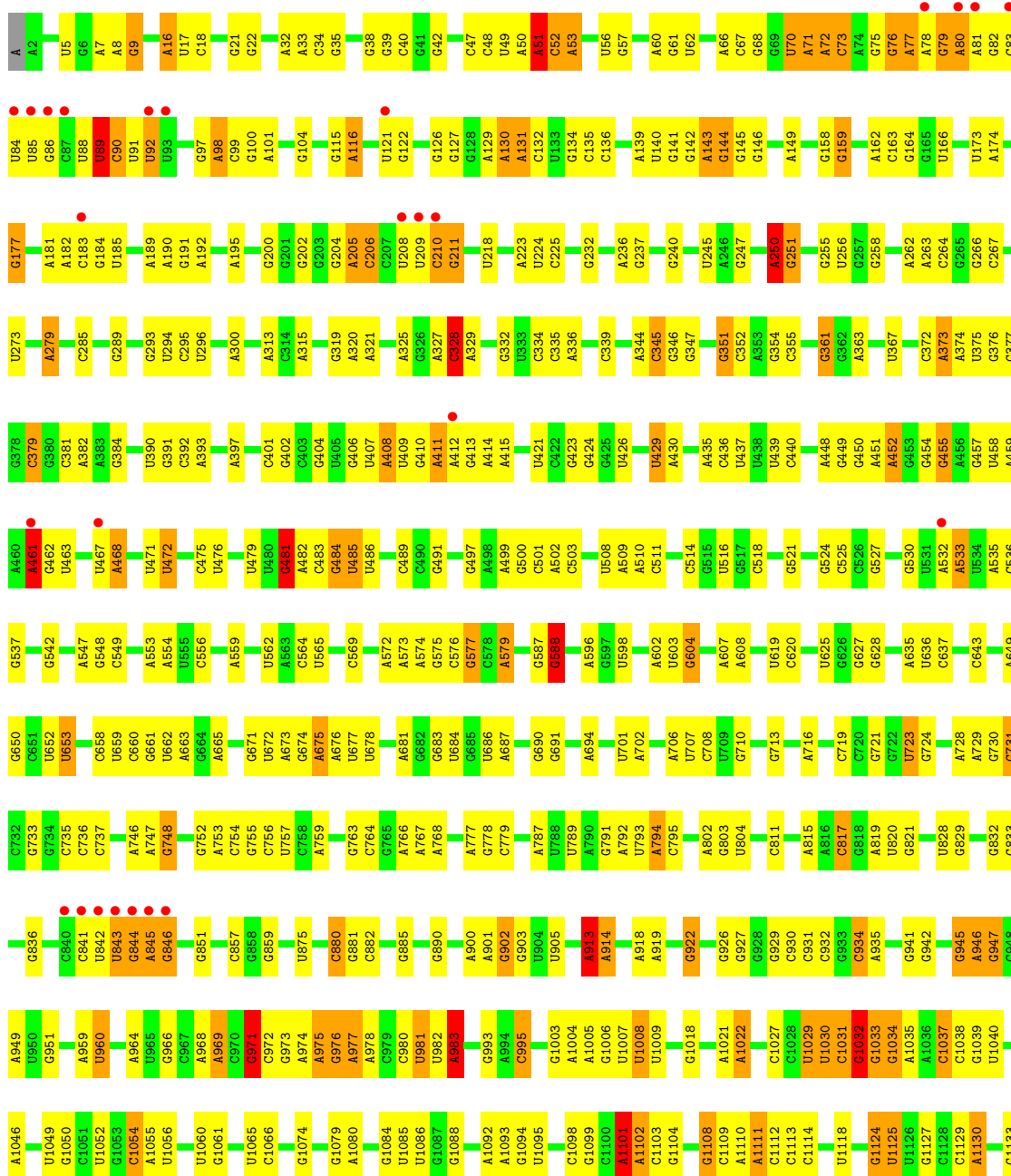


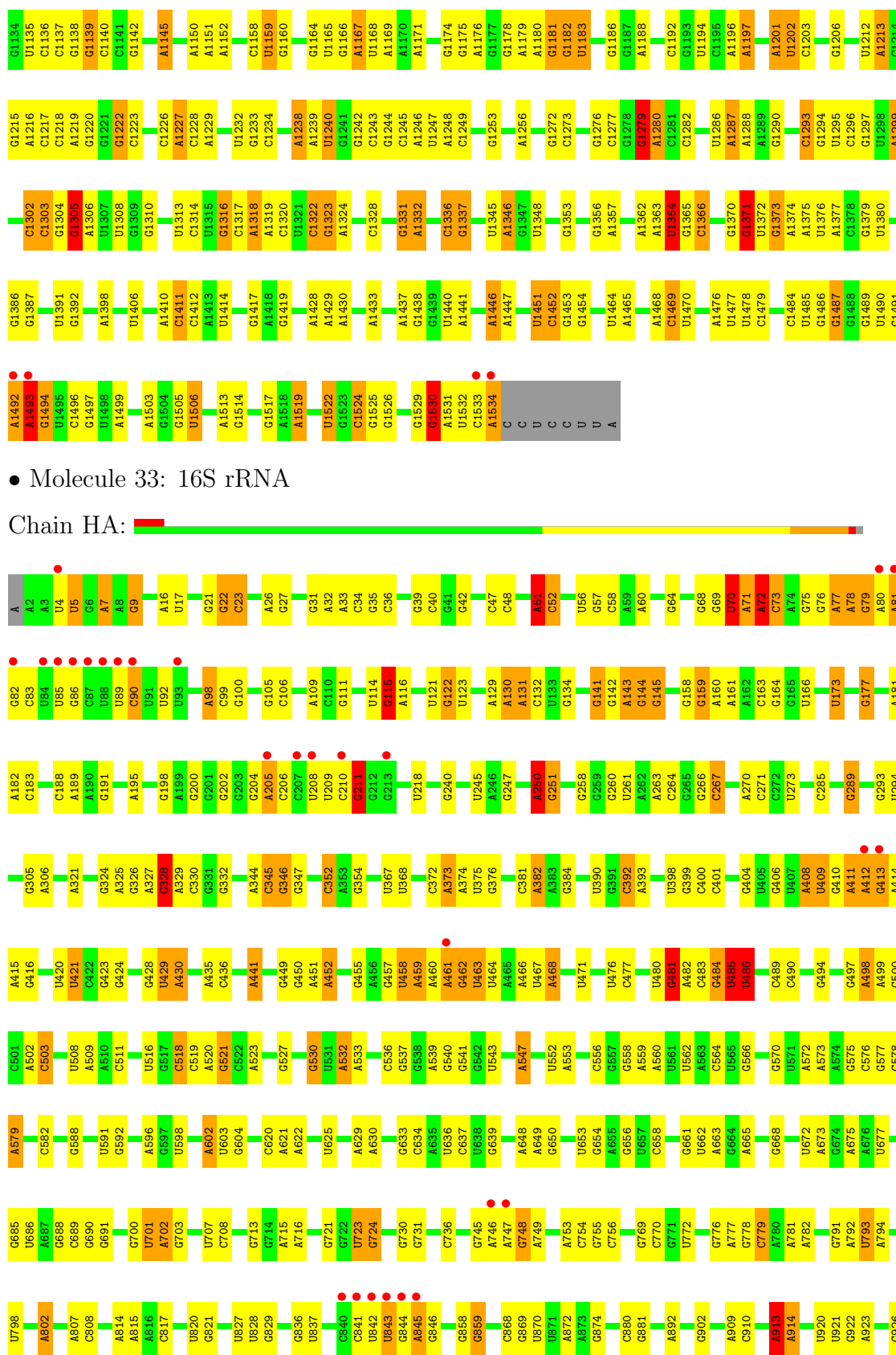


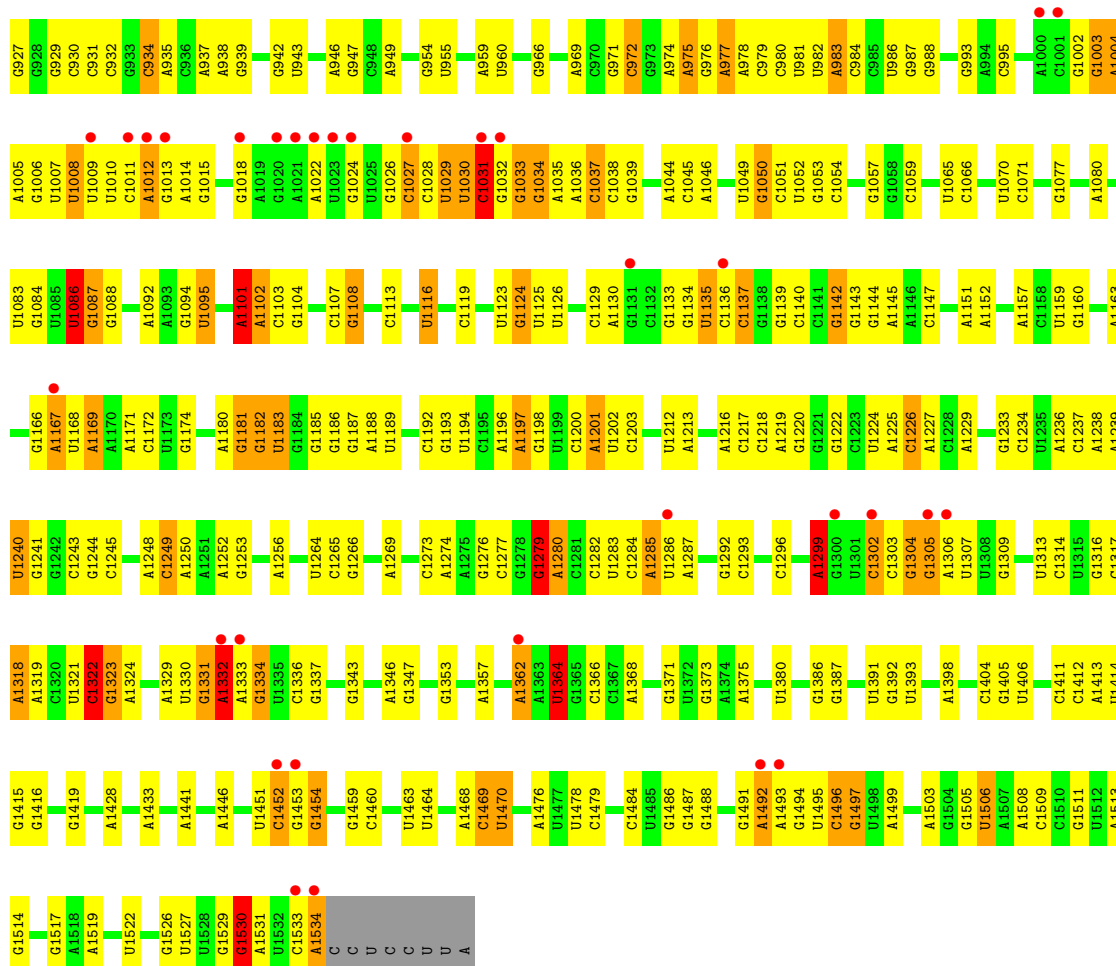


• Molecule 33: 16S rRNA

Chain FA:

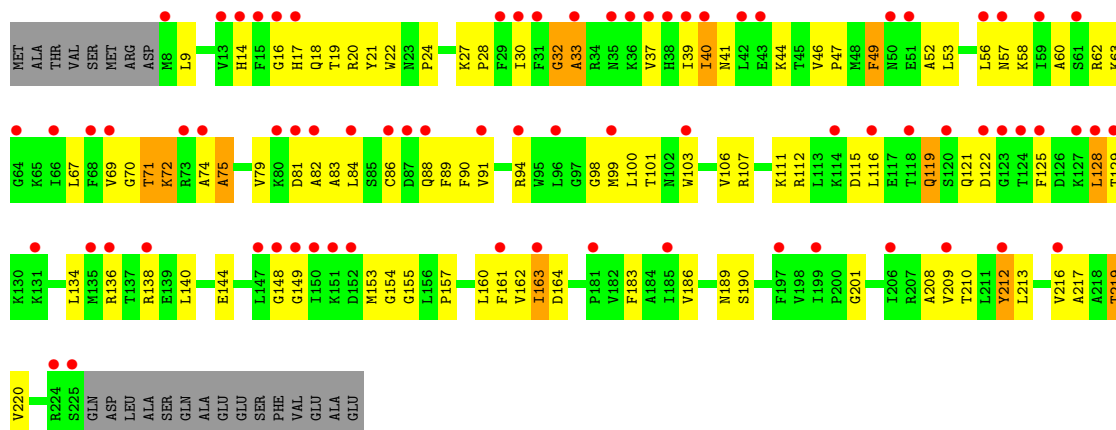






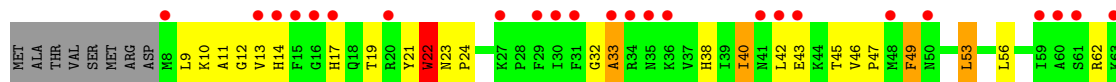
• Molecule 34: 30S ribosomal protein S2

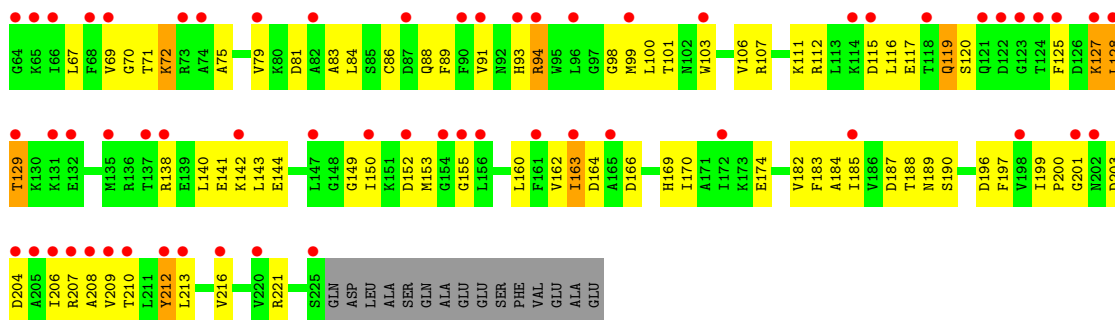
Chain BB:



• Molecule 34: 30S ribosomal protein S2

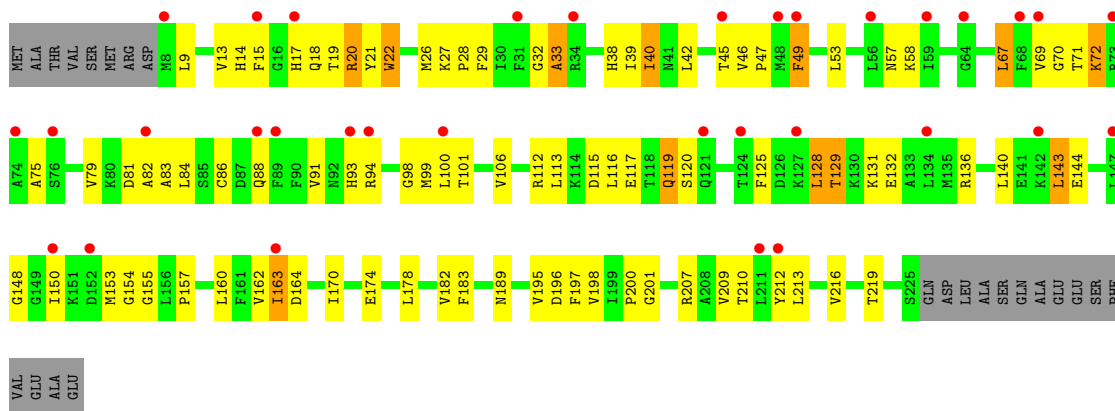
Chain DB:





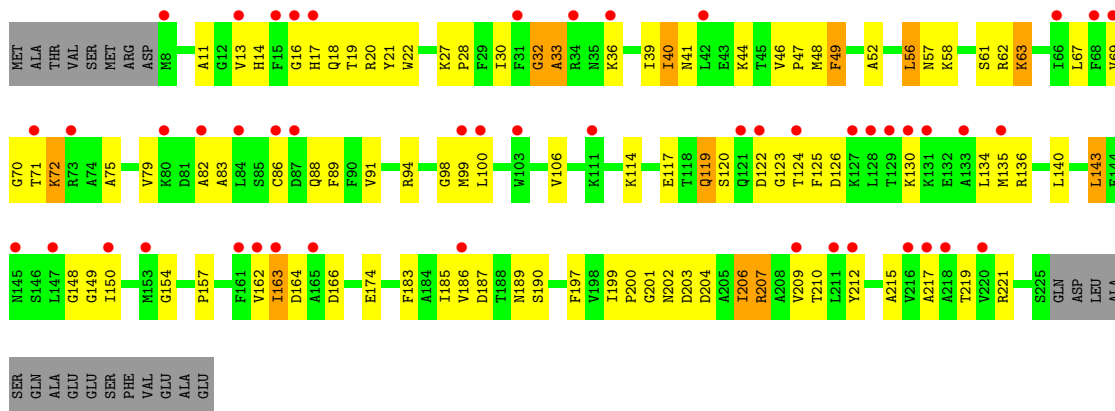
• Molecule 34: 30S ribosomal protein S2

Chain FB:



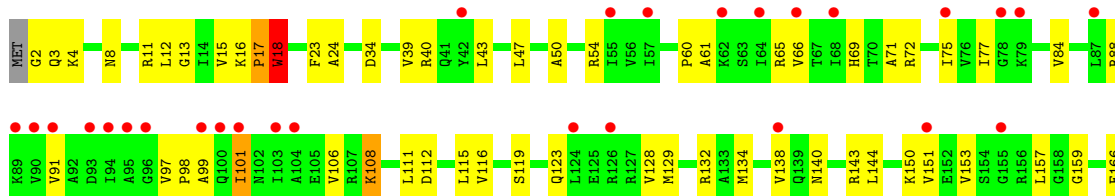
• Molecule 34: 30S ribosomal protein S2

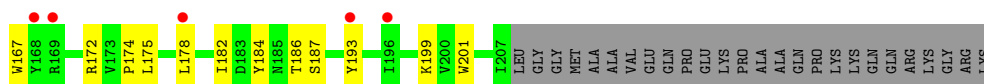
Chain HB:



• Molecule 35: 30S ribosomal protein S3

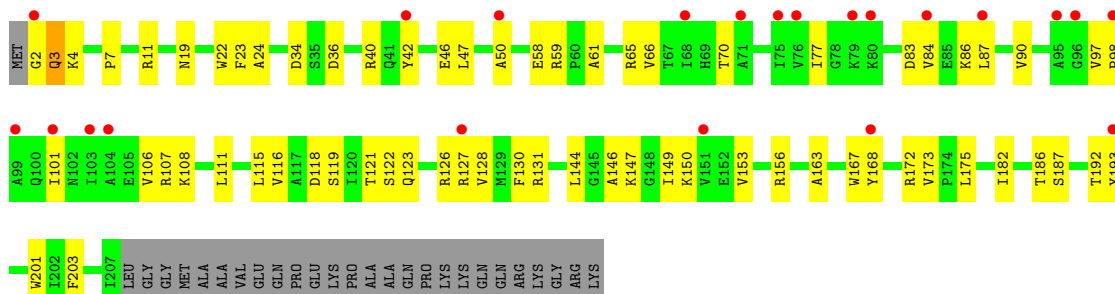
Chain BC:





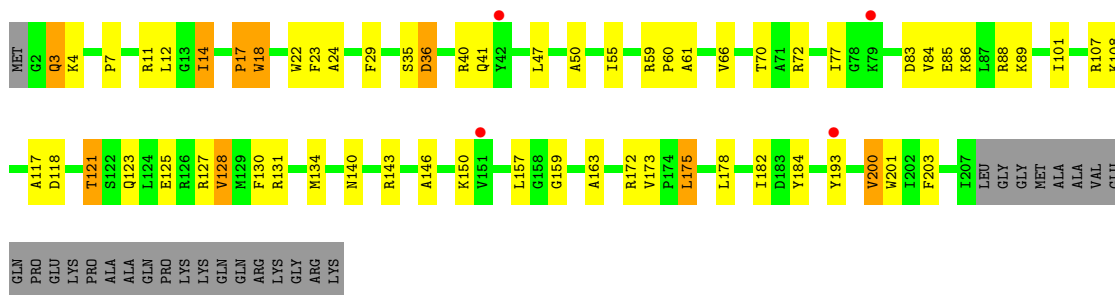
- Molecule 35: 30S ribosomal protein S3

Chain DC:



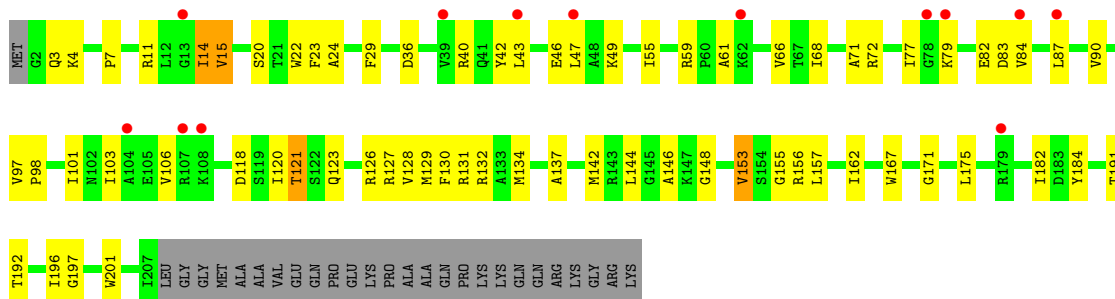
- Molecule 35: 30S ribosomal protein S3

Chain FC:



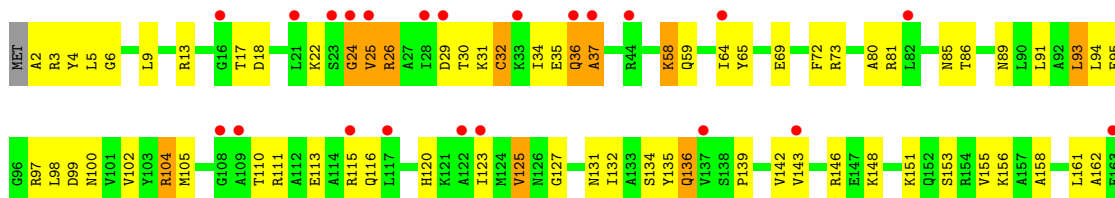
- Molecule 35: 30S ribosomal protein S3

Chain HC:



- Molecule 36: 30S ribosomal protein S4

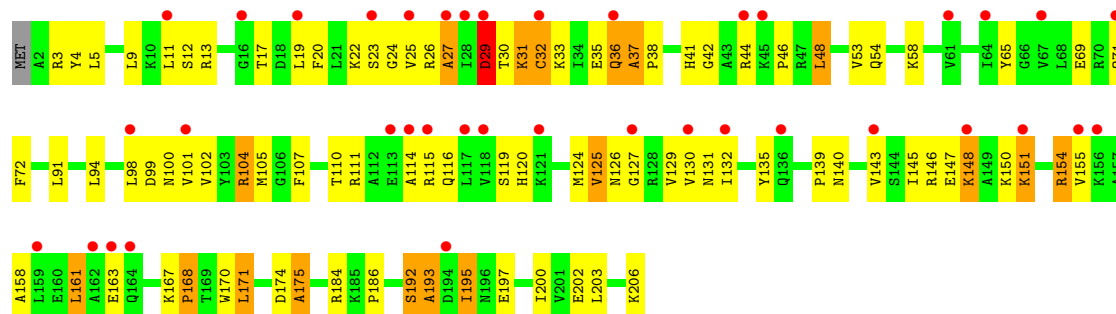
Chain BD:





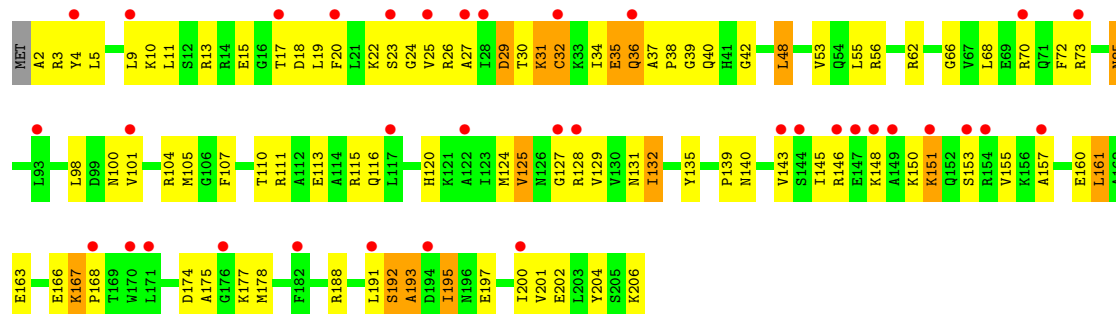
- Molecule 36: 30S ribosomal protein S4

Chain DD:



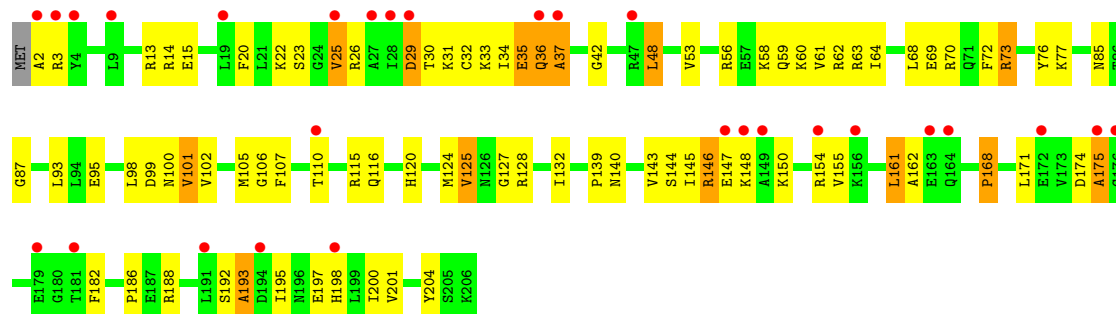
- Molecule 36: 30S ribosomal protein S4

Chain FD:



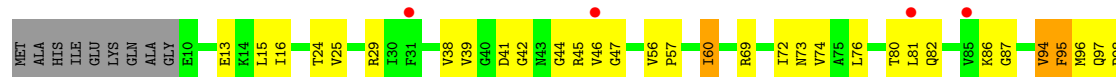
- Molecule 36: 30S ribosomal protein S4

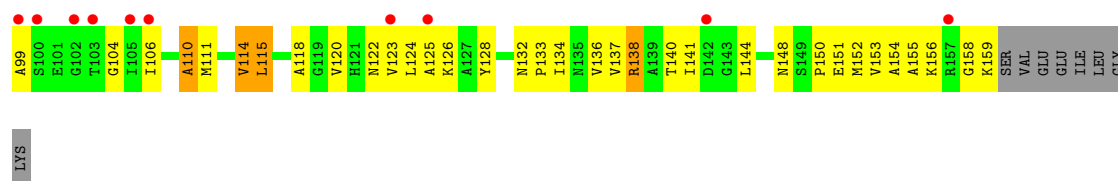
Chain HD:



- Molecule 37: 30S ribosomal protein S5

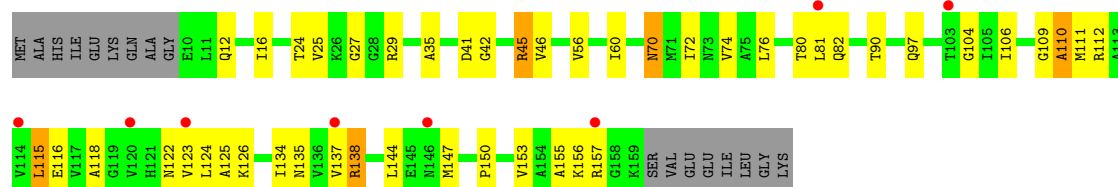
Chain BE:





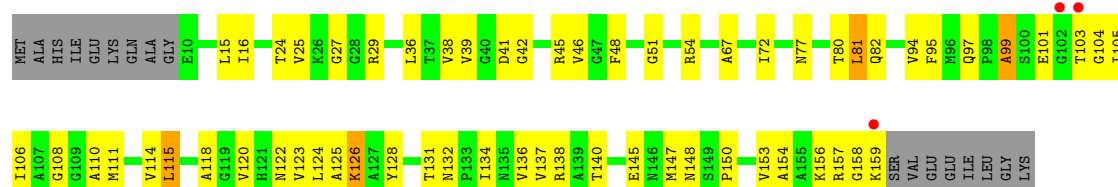
- Molecule 37: 30S ribosomal protein S5

Chain DE:



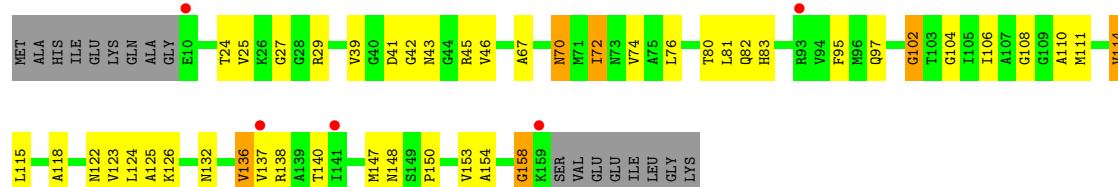
- Molecule 37: 30S ribosomal protein S5

Chain FE:



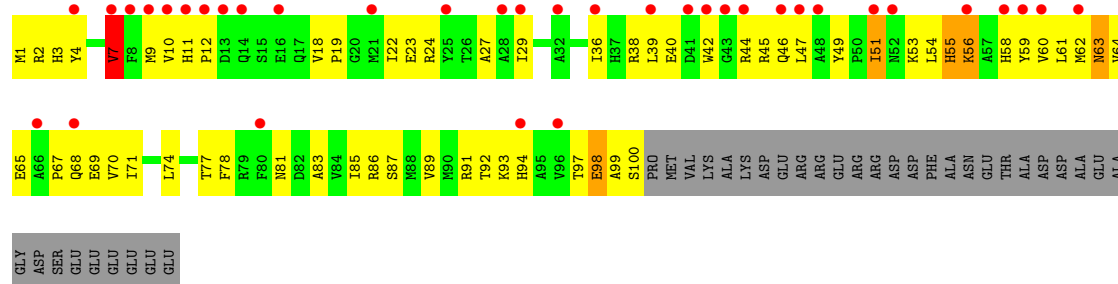
- Molecule 37: 30S ribosomal protein S5

Chain HE:



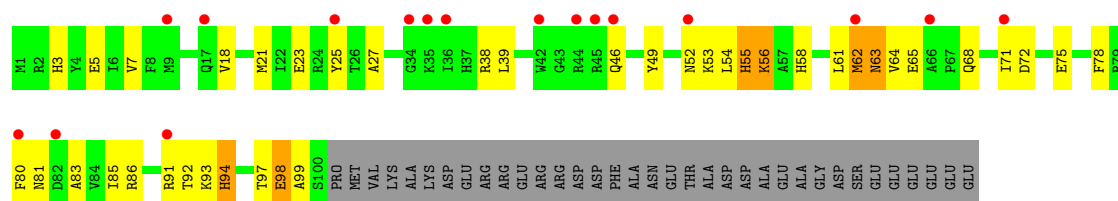
- Molecule 38: 30S ribosomal protein S6

Chain BF:



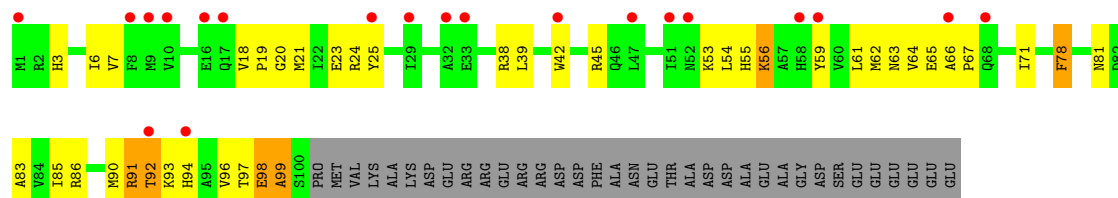
- Molecule 38: 30S ribosomal protein S6

Chain DF:



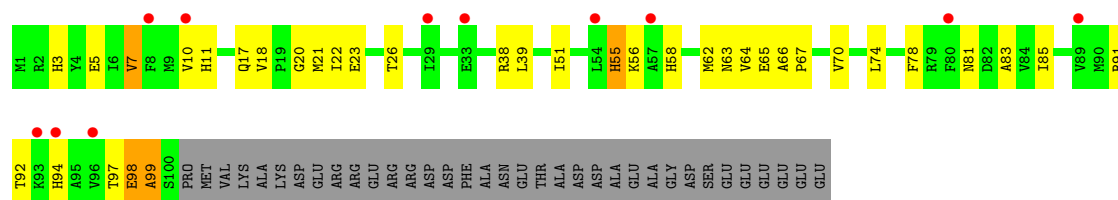
- Molecule 38: 30S ribosomal protein S6

Chain FF:



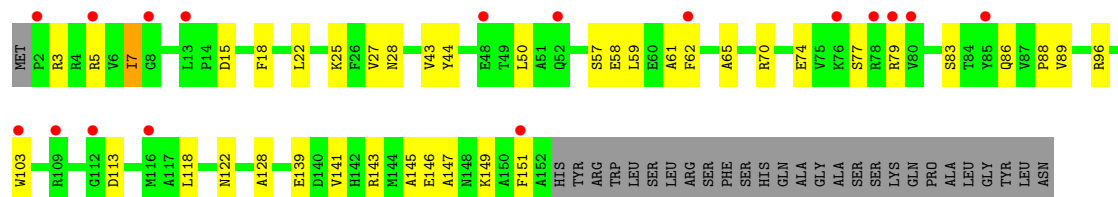
- Molecule 38: 30S ribosomal protein S6

Chain HF:



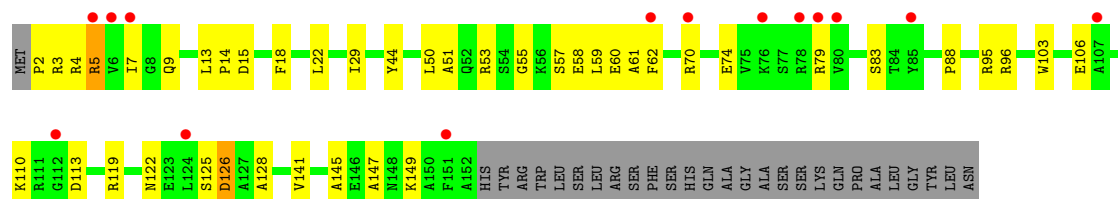
- Molecule 39: 30S ribosomal protein S7

Chain BG:



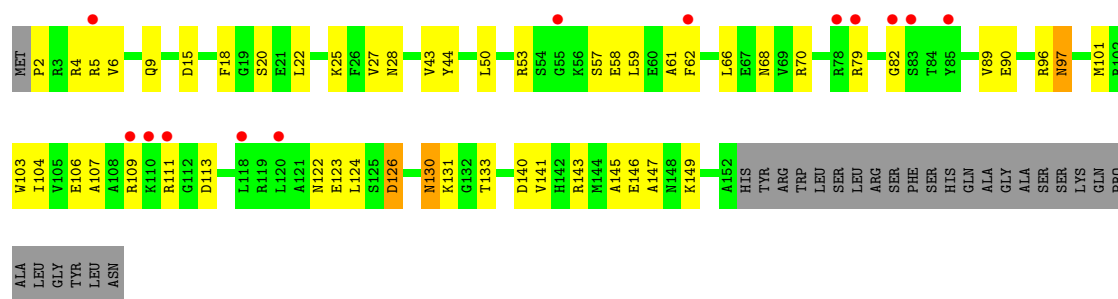
- Molecule 39: 30S ribosomal protein S7

Chain DG:



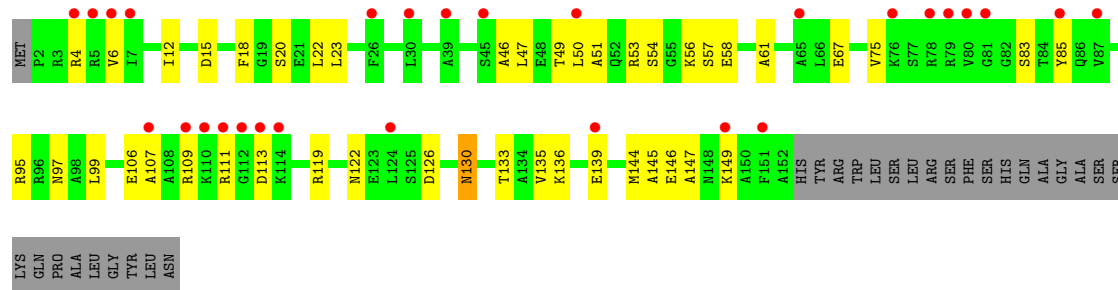
- Molecule 39: 30S ribosomal protein S7

Chain FG:



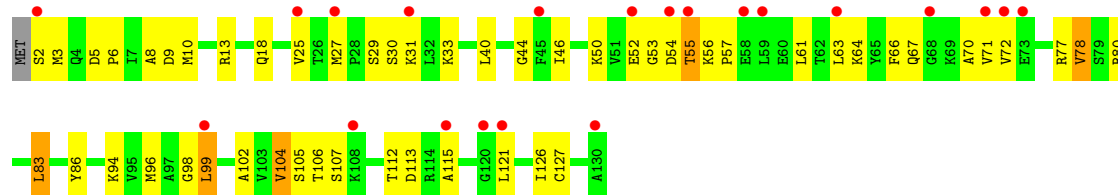
- Molecule 39: 30S ribosomal protein S7

Chain HG:



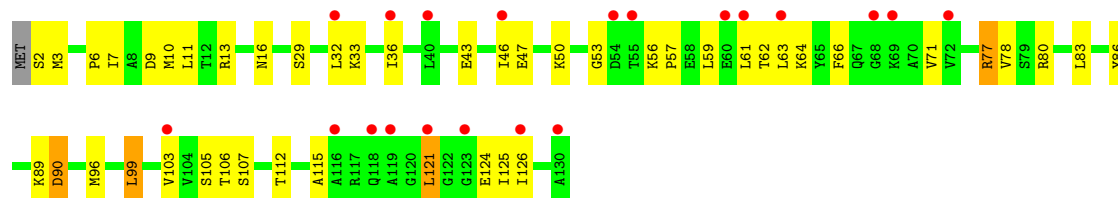
- Molecule 40: 30S ribosomal protein S8

Chain BH:



- Molecule 40: 30S ribosomal protein S8

Chain DH:



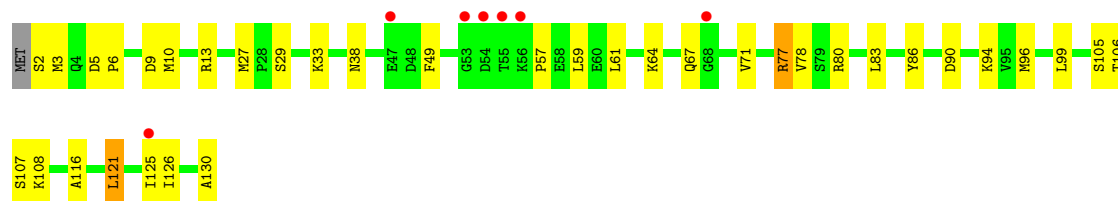
- Molecule 40: 30S ribosomal protein S8

Chain FH:



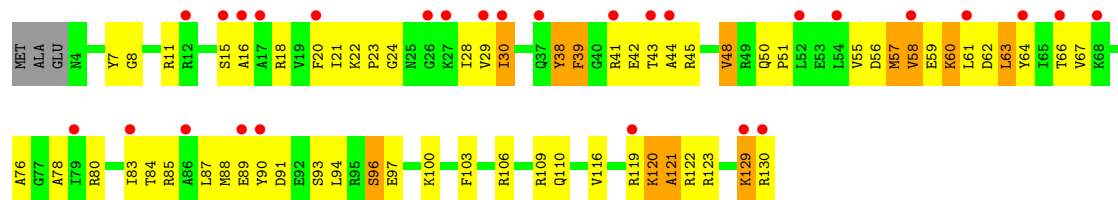
- Molecule 40: 30S ribosomal protein S8

Chain HH:



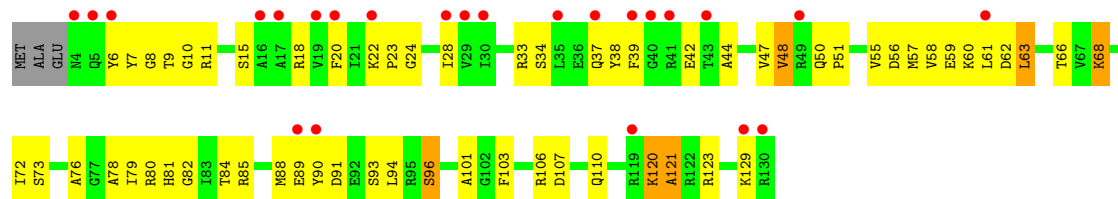
- Molecule 41: 30S ribosomal protein S9

Chain BI:



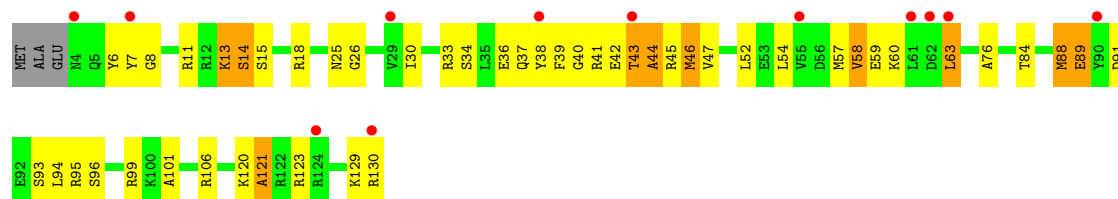
- Molecule 41: 30S ribosomal protein S9

Chain DI:



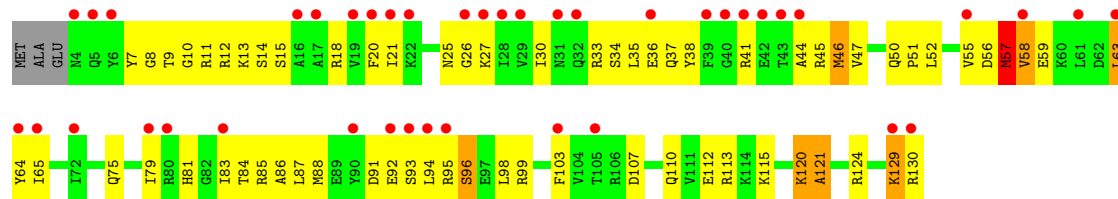
- Molecule 41: 30S ribosomal protein S9

Chain FI:



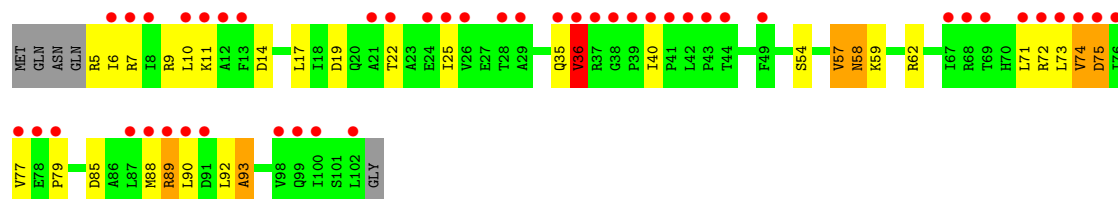
- Molecule 41: 30S ribosomal protein S9

Chain HI:



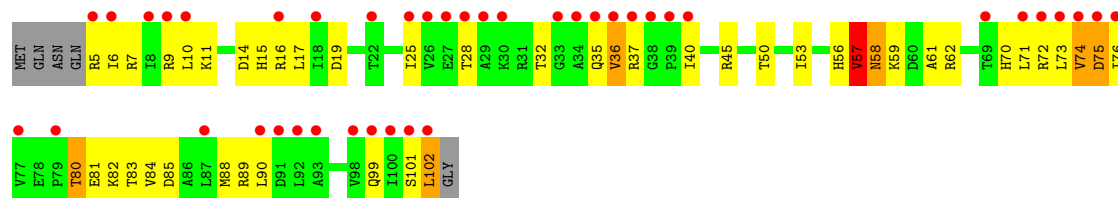
- Molecule 42: 30S ribosomal protein S10

Chain BJ:



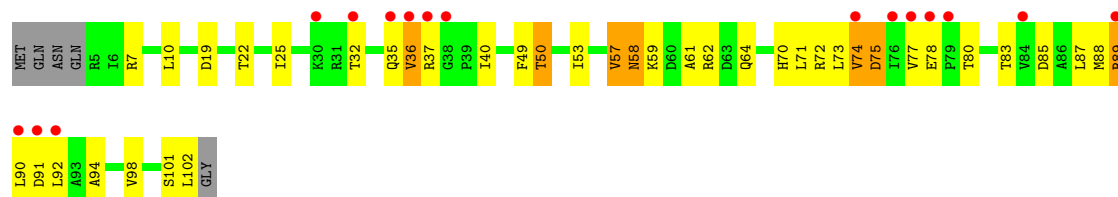
- Molecule 42: 30S ribosomal protein S10

Chain DJ:



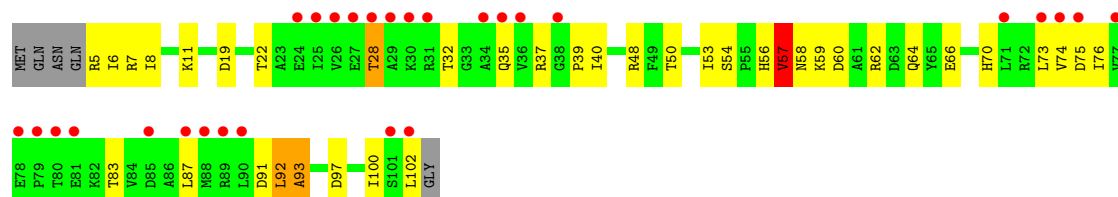
- Molecule 42: 30S ribosomal protein S10

Chain FJ:



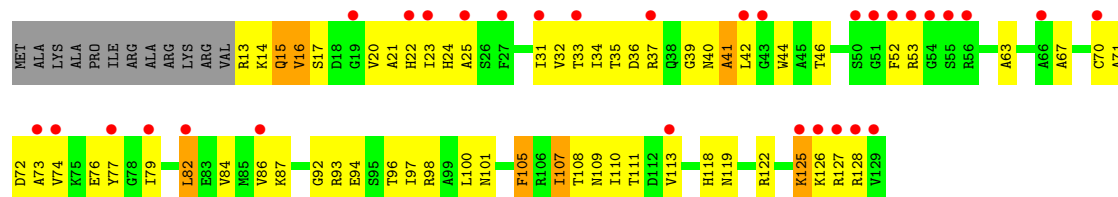
- Molecule 42: 30S ribosomal protein S10

Chain HJ:



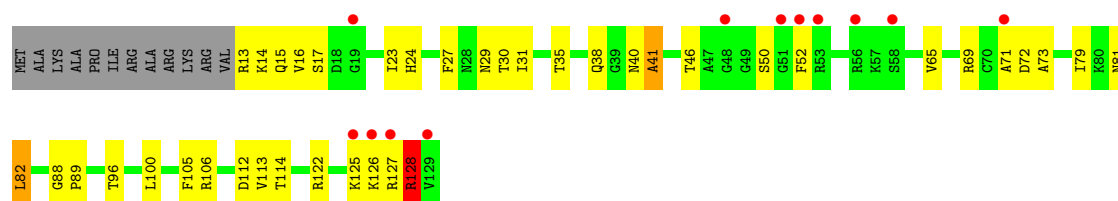
- Molecule 43: 30S ribosomal protein S11

Chain BK:



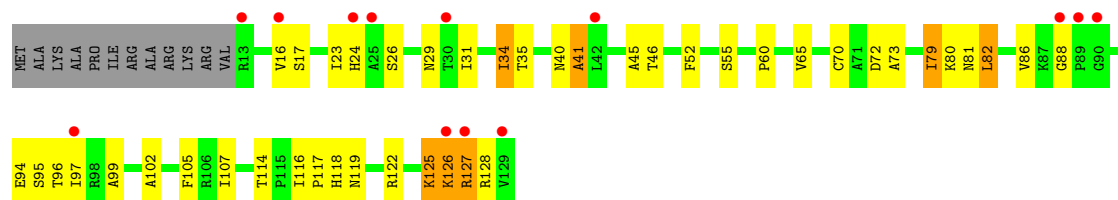
- Molecule 43: 30S ribosomal protein S11

Chain DK:



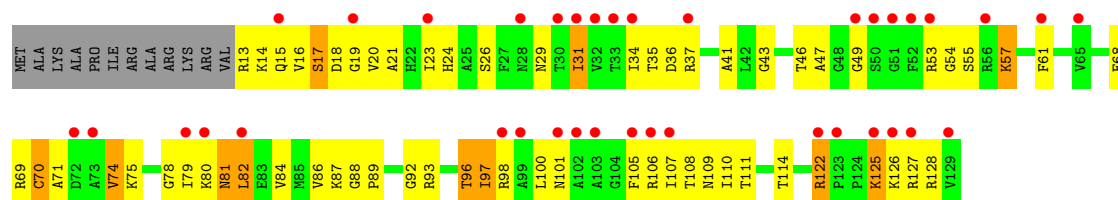
- Molecule 43: 30S ribosomal protein S11

Chain FK:



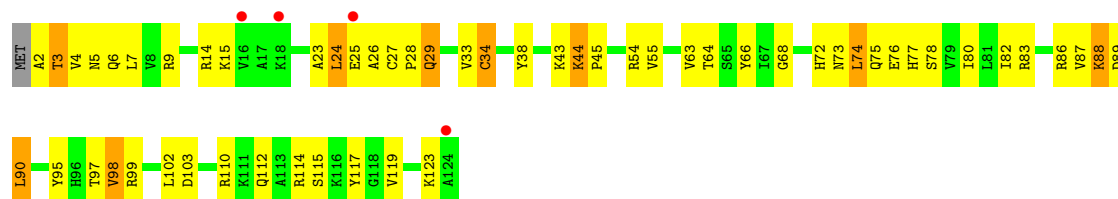
- Molecule 43: 30S ribosomal protein S11

Chain HK:



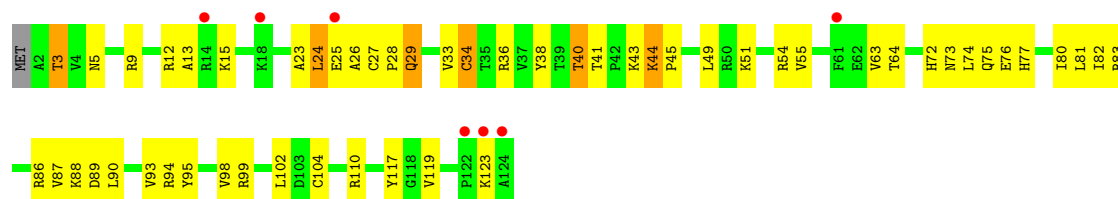
- Molecule 44: 30S ribosomal protein S12

Chain BL:



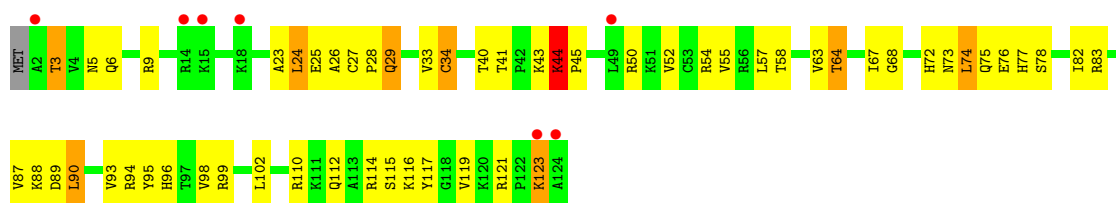
- Molecule 44: 30S ribosomal protein S12

Chain DL:



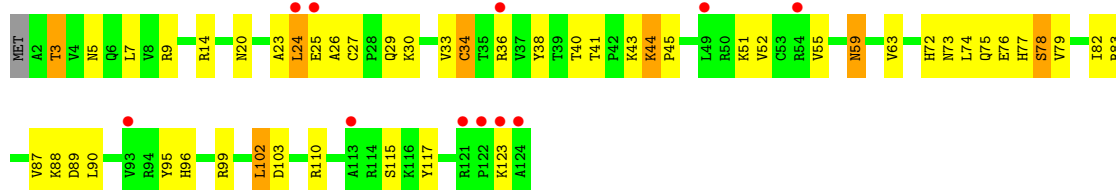
- Molecule 44: 30S ribosomal protein S12

Chain FL:



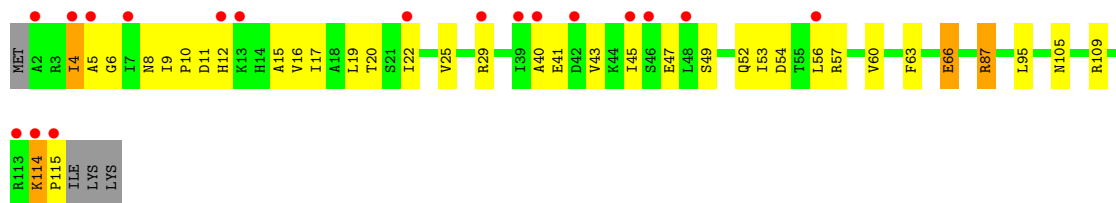
- Molecule 44: 30S ribosomal protein S12

Chain HL:



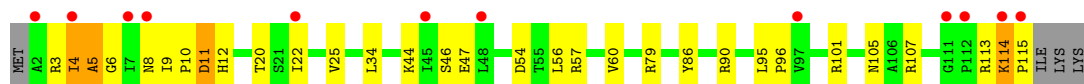
- Molecule 45: 30S ribosomal protein S13

Chain BM:



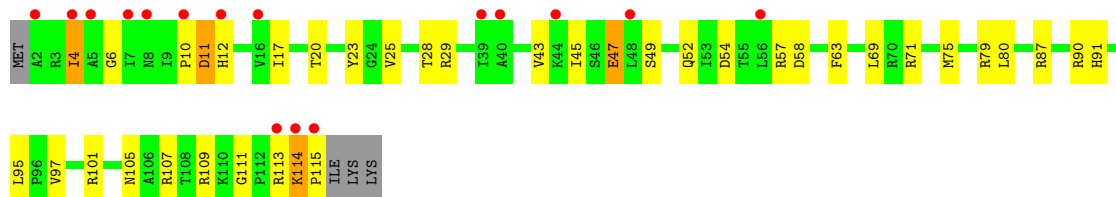
- Molecule 45: 30S ribosomal protein S13

Chain DM:



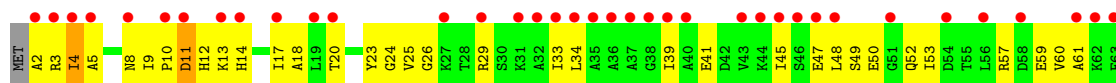
- Molecule 45: 30S ribosomal protein S13

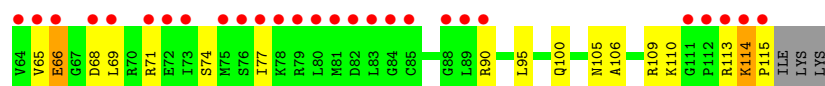
Chain FM:



- Molecule 45: 30S ribosomal protein S13

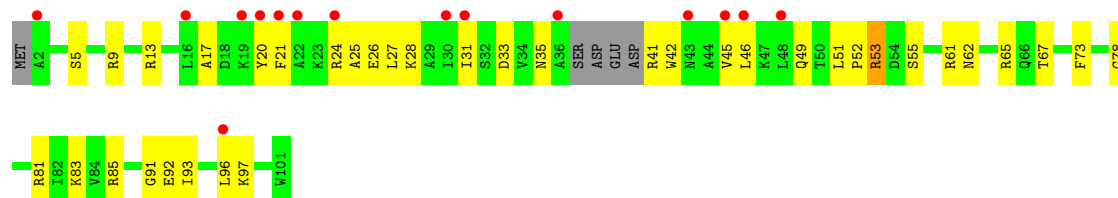
Chain HM:





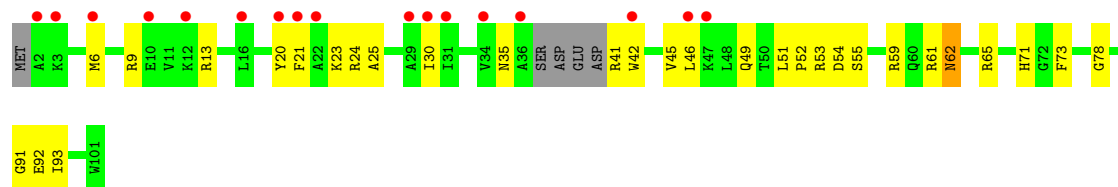
- Molecule 46: 30S ribosomal protein S14

Chain BN:



- Molecule 46: 30S ribosomal protein S14

Chain DN:



- Molecule 46: 30S ribosomal protein S14

Chain FN:



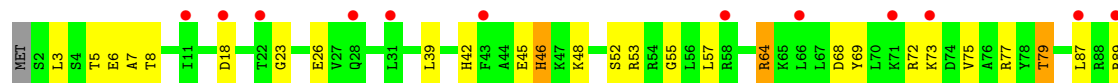
- Molecule 46: 30S ribosomal protein S14

Chain HN:



- Molecule 47: 30S ribosomal protein S15

Chain BO:



- Molecule 47: 30S ribosomal protein S15

Chain DO:



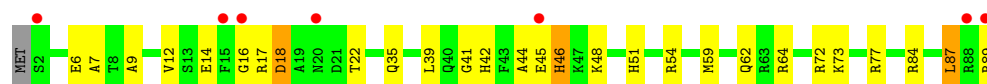
- Molecule 47: 30S ribosomal protein S15

Chain FO:



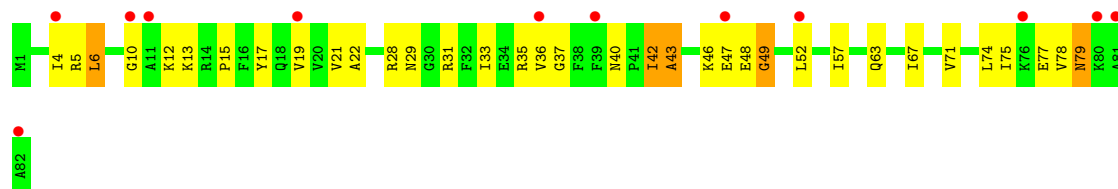
- Molecule 47: 30S ribosomal protein S15

Chain HO:



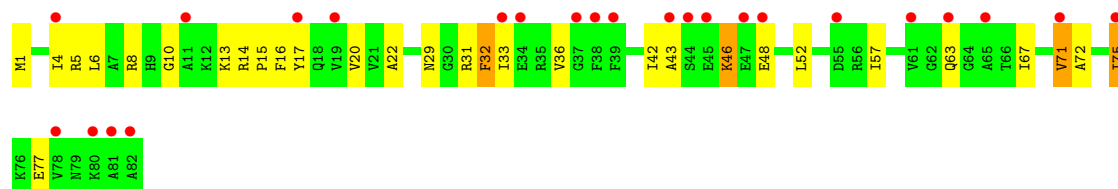
- Molecule 48: 30S ribosomal protein S16

Chain BP:



- Molecule 48: 30S ribosomal protein S16

Chain DP:



- Molecule 48: 30S ribosomal protein S16

Chain FP:



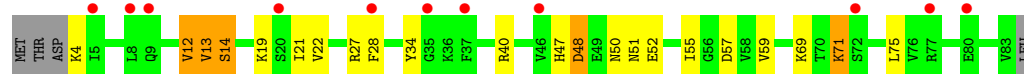
- Molecule 48: 30S ribosomal protein S16

Chain HP:



- Molecule 49: 30S ribosomal protein S17

Chain BQ: 



- Molecule 49: 30S ribosomal protein S17

Chain DQ: 



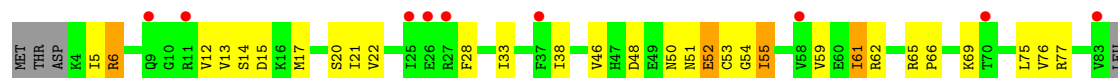
- Molecule 49: 30S ribosomal protein S17

Chain FQ: 



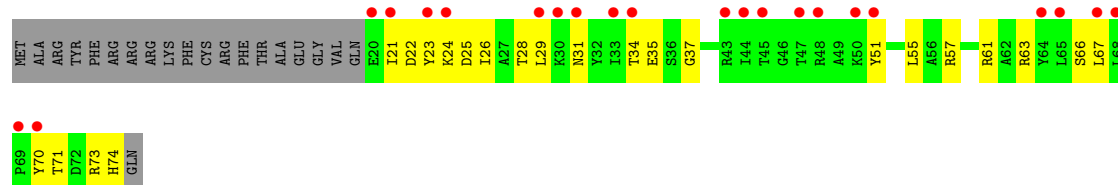
- Molecule 49: 30S ribosomal protein S17

Chain HQ: 



- Molecule 50: 30S ribosomal protein S18

Chain BR: 



- Molecule 50: 30S ribosomal protein S18

Chain DR: 



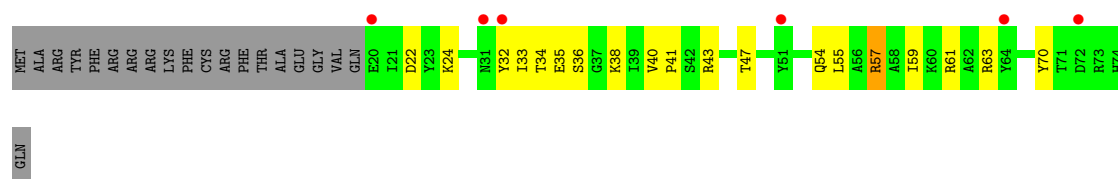
- Molecule 50: 30S ribosomal protein S18

Chain FR: 



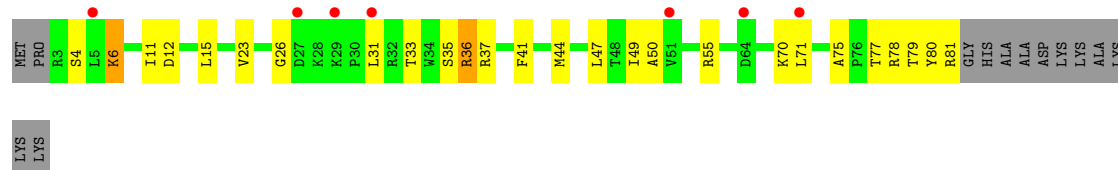
- Molecule 50: 30S ribosomal protein S18

Chain HR: 



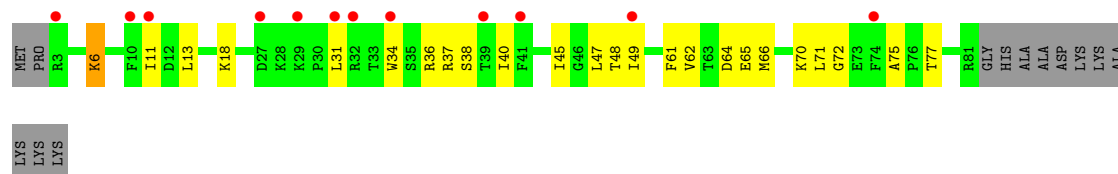
- Molecule 51: 30S ribosomal protein S19

Chain BS:



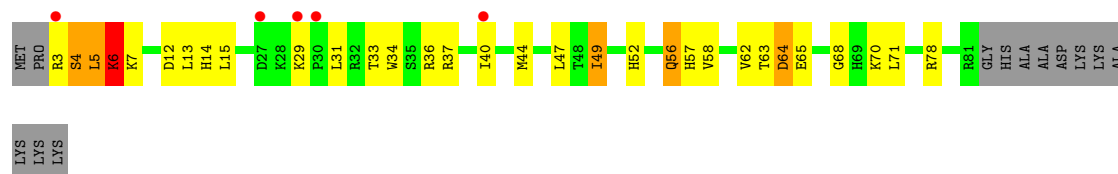
- Molecule 51: 30S ribosomal protein S19

Chain DS:



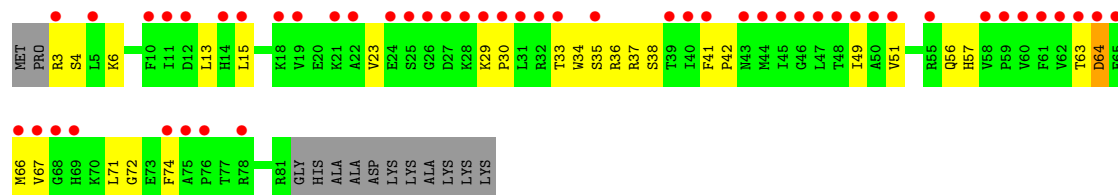
- Molecule 51: 30S ribosomal protein S19

Chain FS:



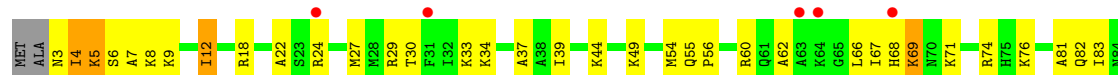
- Molecule 51: 30S ribosomal protein S19

Chain HS:



- Molecule 52: 30S ribosomal protein S20

Chain BT:





- Molecule 52: 30S ribosomal protein S20

Chain DT:



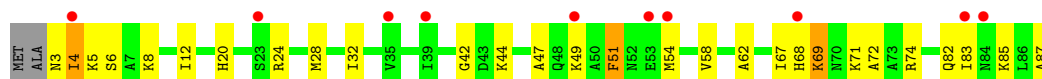
- Molecule 52: 30S ribosomal protein S20

Chain FT:



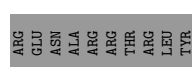
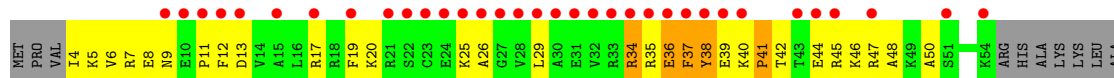
- Molecule 52: 30S ribosomal protein S20

Chain HT:



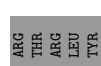
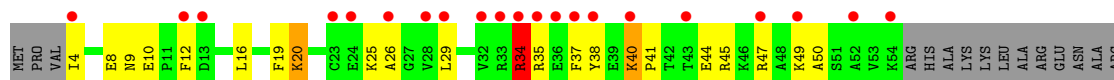
- Molecule 53: 30S ribosomal protein S21

Chain BU:



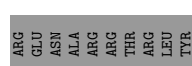
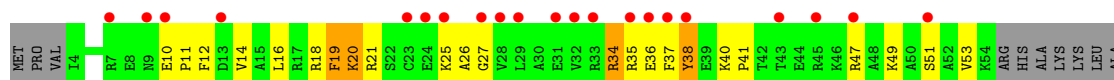
- Molecule 53: 30S ribosomal protein S21

Chain DU:



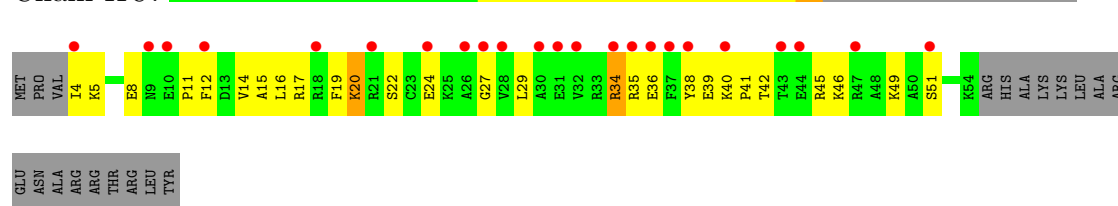
- Molecule 53: 30S ribosomal protein S21

Chain FU:



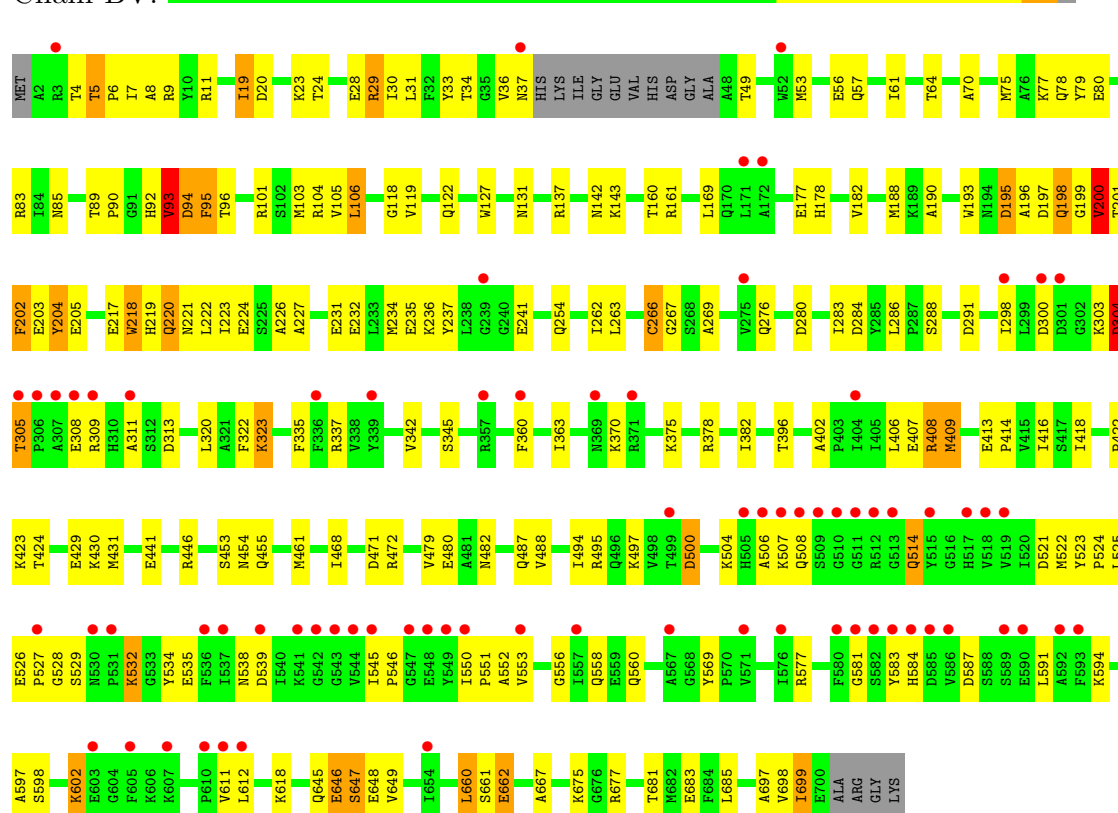
- Molecule 53: 30S ribosomal protein S21

Chain HU:



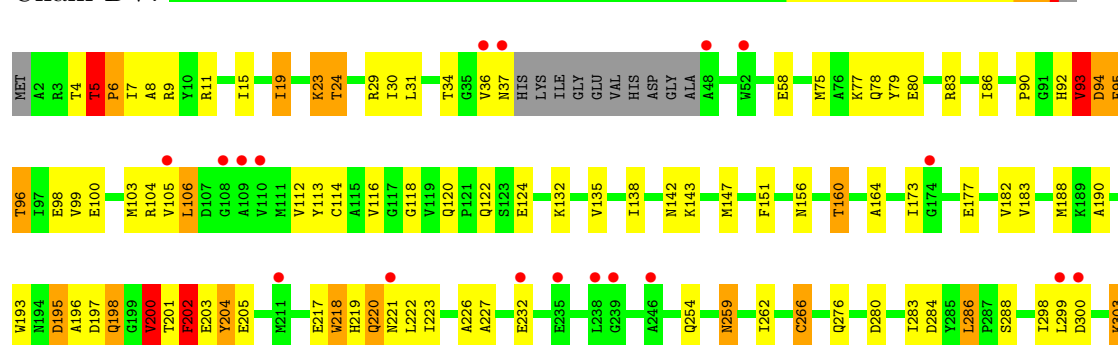
- Molecule 54: elongation factor G

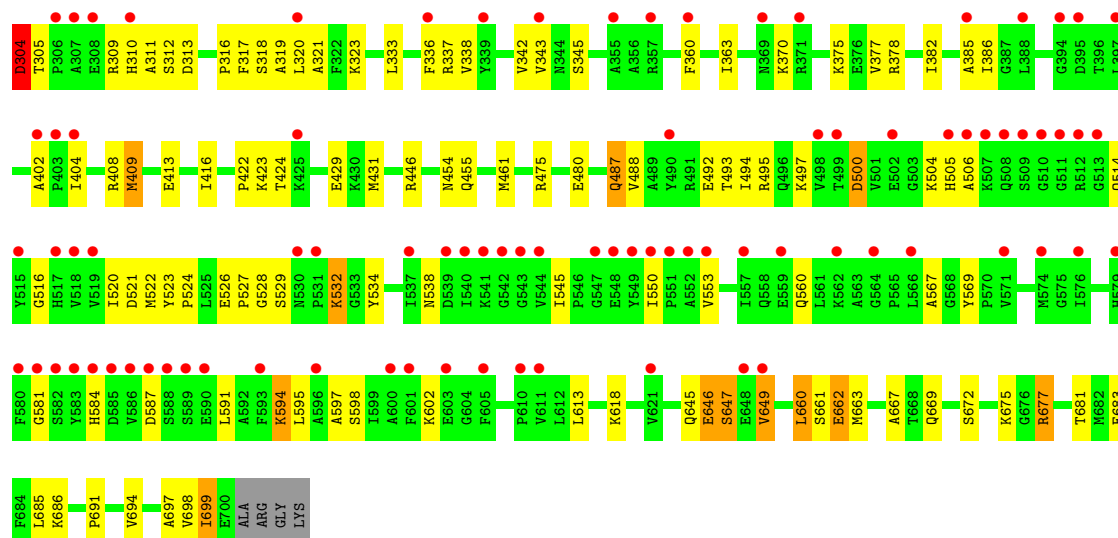
Chain BV:



- Molecule 54: elongation factor G

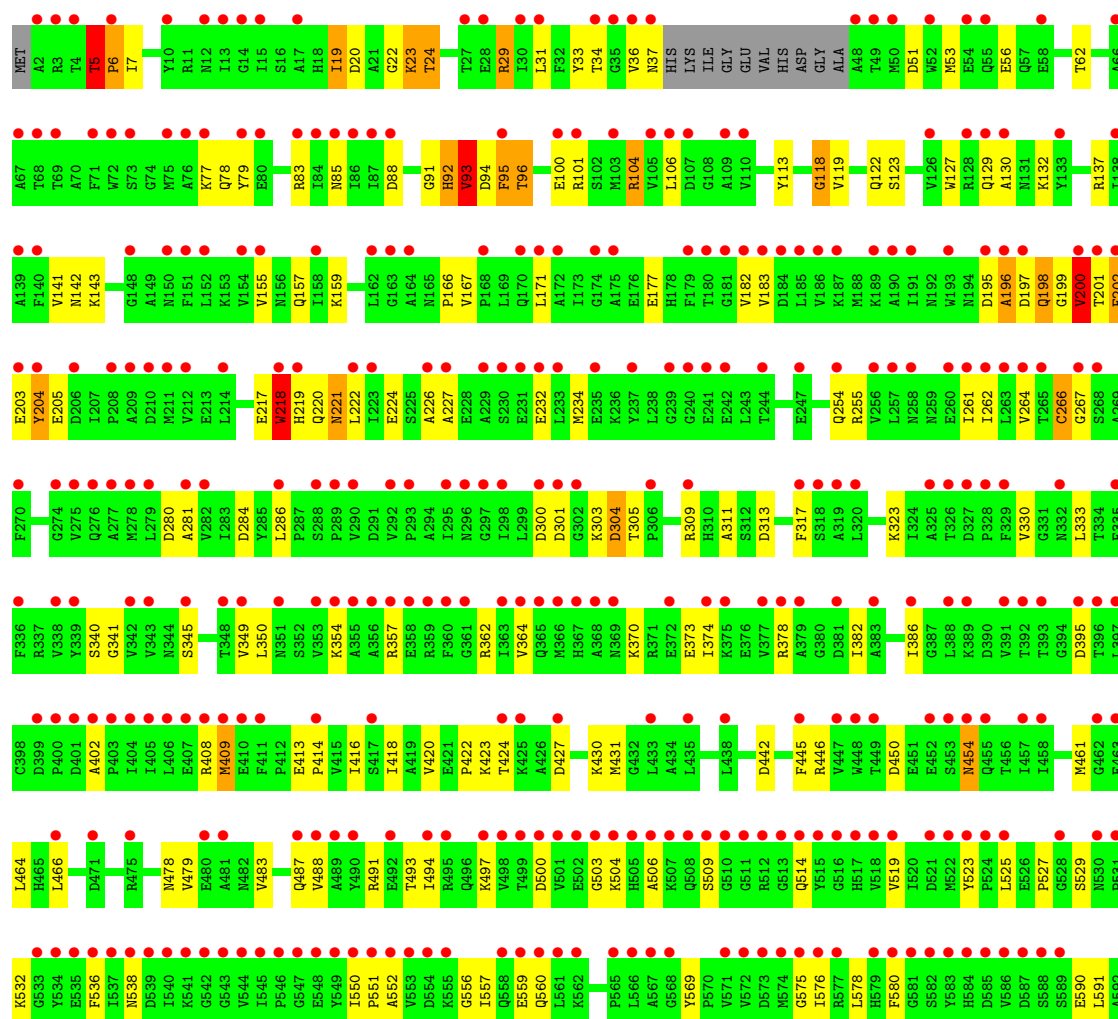
Chain DV:

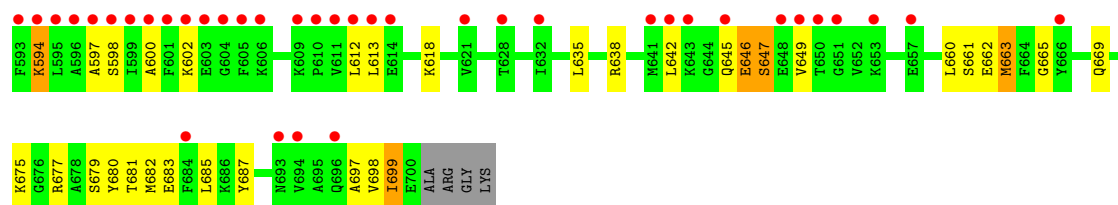




• Molecule 54: elongation factor G

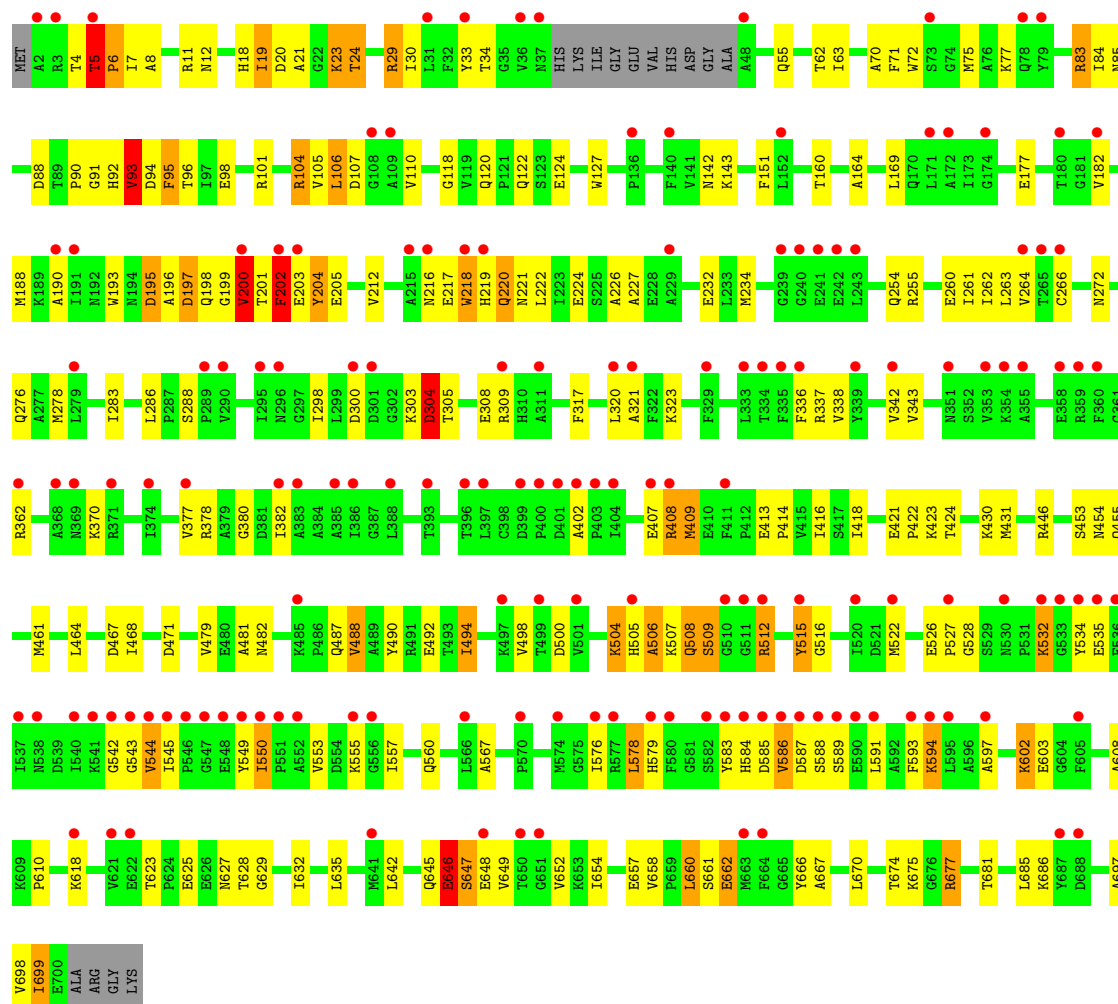
Chain FV:





• Molecule 54: elongation factor G

Chain HV:



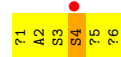
• Molecule 55: Viomycin

Chain BW:



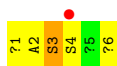
• Molecule 55: Viomycin

Chain DW:



- Molecule 55: Viomycin

Chain FW: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	361.14Å 360.51Å 429.73Å 90.00° 103.22° 90.00°	Depositor
Resolution (Å)	70.00 – 2.90 69.13 – 2.80	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-2.90) 77.4 (69.13-2.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.24 (at 2.81Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.215 , 0.267 0.223 , 0.270	Depositor DCC
R_{free} test set	3893 reflections (0.43%)	DCC
Wilson B-factor (Å ²)	54.5	Xtriage
Anisotropy	0.324	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 4.6	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	1 of 2019725 reflections (0.000%)	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	590573	wwPDB-VP
Average B, all atoms (Å ²)	35.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 21.58 % of the origin peak, indicating pseudo translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo translational symmetry is equal to 6.8072e-03.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, DPP, MG, KBE, GCP, UAL, 5OH

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.74	9/68626 (0.0%)	1.28	446/107056 (0.4%)
1	CA	0.76	7/68626 (0.0%)	1.27	404/107056 (0.4%)
1	EA	0.90	29/68626 (0.0%)	1.41	729/107056 (0.7%)
1	GA	0.72	11/68626 (0.0%)	1.25	345/107056 (0.3%)
2	AB	0.67	0/2828	1.20	13/4410 (0.3%)
2	CB	0.61	0/2828	1.15	11/4410 (0.2%)
2	EB	0.75	1/2828 (0.0%)	1.38	18/4410 (0.4%)
2	GB	0.62	0/2828	1.09	2/4410 (0.0%)
3	AC	0.55	0/2121	0.83	3/2852 (0.1%)
3	CC	0.60	0/2121	0.81	0/2852
3	EC	0.62	0/2121	0.83	1/2852 (0.0%)
3	GC	0.59	0/2121	0.84	1/2852 (0.0%)
4	AD	0.60	0/1586	0.81	1/2134 (0.0%)
4	CD	0.55	0/1586	0.75	1/2134 (0.0%)
4	ED	0.63	0/1586	0.81	0/2134
4	GD	0.54	0/1586	0.78	1/2134 (0.0%)
5	AE	0.50	0/1571	0.76	1/2113 (0.0%)
5	CE	0.53	0/1571	0.71	0/2113
5	EE	0.59	0/1571	0.79	2/2113 (0.1%)
5	GE	0.49	0/1571	0.68	0/2113
6	AF	0.69	0/1434	0.89	0/1926
6	CF	0.52	0/1434	0.70	0/1926
6	EF	0.51	0/1434	0.73	0/1926
6	GF	0.58	0/1434	0.77	1/1926 (0.1%)
7	AG	0.54	0/1343	0.72	0/1816
7	CG	0.52	0/1343	0.73	0/1816
7	EG	0.53	0/1343	0.74	0/1816
7	GG	0.52	0/1343	0.72	0/1816
8	AH	0.54	0/389	0.71	0/523
8	CH	0.60	0/389	0.76	0/523
8	EH	0.57	0/389	0.73	0/523
8	GH	0.57	0/389	0.74	0/523

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	AI	0.58	0/1046	0.77	0/1410
9	CI	0.58	0/1046	0.74	0/1410
9	EI	0.61	0/1046	0.75	0/1410
9	GI	0.71	0/1046	0.84	0/1410
10	AJ	0.53	0/1152	0.77	0/1551
10	CJ	0.57	1/1152 (0.1%)	0.78	0/1551
10	EJ	0.70	1/1152 (0.1%)	0.82	1/1551 (0.1%)
10	GJ	0.55	1/1152 (0.1%)	0.71	0/1551
11	AK	0.62	0/947	0.79	0/1268
11	CK	0.63	0/947	0.78	0/1268
11	EK	0.59	0/947	0.83	0/1268
11	GK	0.55	0/947	0.80	0/1268
12	AL	0.53	0/1054	0.78	2/1403 (0.1%)
12	CL	0.53	0/1054	0.81	2/1403 (0.1%)
12	EL	0.61	0/1054	0.81	0/1403
12	GL	0.52	0/1054	0.78	0/1403
13	AM	0.61	1/1093 (0.1%)	0.81	1/1460 (0.1%)
13	CM	0.53	0/1093	0.75	0/1460
13	EM	0.62	0/1093	0.87	2/1460 (0.1%)
13	GM	0.52	0/1093	0.73	0/1460
14	AN	0.51	0/973	0.75	1/1301 (0.1%)
14	CN	0.46	0/973	0.77	4/1301 (0.3%)
14	EN	0.57	0/973	0.74	0/1301
14	GN	0.49	0/973	0.69	0/1301
15	AO	0.48	0/902	0.72	0/1209
15	CO	0.47	0/902	0.70	0/1209
15	EO	0.48	0/902	0.75	0/1209
15	GO	0.48	0/902	0.74	0/1209
16	AP	0.56	0/929	0.87	2/1242 (0.2%)
16	CP	0.56	0/929	0.85	2/1242 (0.2%)
16	EP	0.63	1/929 (0.1%)	0.89	1/1242 (0.1%)
16	GP	0.58	0/929	0.80	0/1242
17	AQ	0.56	0/960	0.75	1/1278 (0.1%)
17	CQ	0.60	0/960	0.78	1/1278 (0.1%)
17	EQ	0.70	0/960	0.88	2/1278 (0.2%)
17	GQ	0.53	0/960	0.74	0/1278
18	AR	0.59	0/829	0.75	0/1107
18	CR	0.59	0/829	0.75	0/1107
18	ER	0.68	2/829 (0.2%)	0.79	0/1107
18	GR	0.56	0/829	0.75	0/1107
19	AS	0.52	0/864	0.76	0/1156
19	CS	0.52	0/864	0.73	0/1156
19	ES	0.62	0/864	0.84	1/1156 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
19	GS	0.49	0/864	0.72	0/1156
20	AT	0.60	0/744	0.84	0/994
20	CT	0.56	0/744	0.89	0/994
20	ET	0.65	0/744	0.92	1/994 (0.1%)
20	GT	0.57	0/744	0.91	1/994 (0.1%)
21	AU	0.56	0/787	0.76	0/1051
21	CU	0.52	0/787	0.75	0/1051
21	EU	0.61	0/787	0.81	0/1051
21	GU	0.52	0/787	0.77	0/1051
22	AV	0.48	0/766	0.67	0/1025
22	CV	0.55	1/766 (0.1%)	0.67	0/1025
22	EV	0.57	0/766	0.72	0/1025
22	GV	0.47	0/766	0.65	0/1025
23	AW	0.63	0/603	0.93	1/797 (0.1%)
23	CW	0.70	0/603	0.94	1/797 (0.1%)
23	EW	0.78	0/603	0.97	1/797 (0.1%)
23	GW	0.66	0/603	0.92	0/797
24	AX	0.52	0/635	0.83	1/848 (0.1%)
24	CX	0.58	0/635	0.80	2/848 (0.2%)
24	EX	0.56	0/635	0.79	1/848 (0.1%)
24	GX	0.51	0/635	0.79	0/848
25	AY	0.47	0/510	0.75	0/677
25	CY	0.51	0/510	0.76	0/677
25	EY	0.54	0/510	0.85	1/677 (0.1%)
25	GY	0.55	0/510	0.79	1/677 (0.1%)
26	AZ	0.53	0/453	0.65	0/605
26	CZ	0.49	0/453	0.75	0/605
26	EZ	0.58	0/453	0.82	0/605
26	GZ	0.48	0/453	0.73	0/605
27	A0	0.50	0/450	0.77	0/599
27	C0	0.49	0/450	0.72	0/599
27	E0	0.68	1/450 (0.2%)	0.80	1/599 (0.2%)
27	G0	0.52	1/450 (0.2%)	0.69	0/599
28	A1	0.54	0/416	0.78	0/554
28	C1	0.51	0/416	0.76	0/554
28	E1	0.54	0/416	0.72	0/554
28	G1	0.54	0/416	0.73	0/554
29	A2	0.52	0/380	0.77	0/498
29	C2	0.56	0/380	0.73	0/498
29	E2	0.75	1/380 (0.3%)	0.84	1/498 (0.2%)
29	G2	0.59	0/380	0.75	0/498
30	A3	0.51	0/513	0.74	0/676
30	C3	0.54	0/513	0.68	0/676

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
30	E3	0.64	0/513	0.81	0/676
30	G3	0.50	0/513	0.70	0/676
31	A4	0.61	0/303	0.78	0/397
31	C4	0.60	0/303	0.81	0/397
31	E4	0.60	0/303	0.82	0/397
31	G4	0.53	0/303	0.77	0/397
32	A5	0.83	0/1131	1.34	28/1524 (1.8%)
32	E5	0.74	0/1106	1.34	26/1490 (1.7%)
33	BA	0.64	0/36834	1.15	99/57462 (0.2%)
33	DA	0.63	0/36834	1.13	95/57462 (0.2%)
33	FA	0.65	1/36834 (0.0%)	1.18	114/57462 (0.2%)
33	HA	0.64	0/36834	1.13	101/57462 (0.2%)
34	BB	0.53	0/1735	0.72	0/2338
34	DB	0.49	0/1735	0.70	0/2338
34	FB	0.54	0/1735	0.73	0/2338
34	HB	0.52	0/1735	0.72	0/2338
35	BC	0.47	0/1651	0.64	0/2225
35	DC	0.47	0/1651	0.61	0/2225
35	FC	0.50	0/1651	0.71	0/2225
35	HC	0.48	0/1651	0.67	0/2225
36	BD	0.52	0/1665	0.74	0/2227
36	DD	0.54	0/1665	0.76	0/2227
36	FD	0.49	0/1665	0.71	0/2227
36	HD	0.52	0/1665	0.73	0/2227
37	BE	0.56	1/1118 (0.1%)	0.77	0/1504
37	DE	0.50	0/1118	0.74	0/1504
37	FE	0.54	0/1118	0.78	0/1504
37	HE	0.52	0/1118	0.76	0/1504
38	BF	0.64	0/835	0.75	0/1128
38	DF	0.55	0/835	0.73	0/1128
38	FF	0.54	0/835	0.73	0/1128
38	HF	0.58	0/835	0.72	0/1128
39	BG	0.48	0/1195	0.66	0/1602
39	DG	0.47	0/1195	0.66	0/1602
39	FG	0.51	0/1195	0.70	0/1602
39	HG	0.51	0/1195	0.73	0/1602
40	BH	0.48	0/989	0.63	0/1326
40	DH	0.50	0/989	0.65	0/1326
40	FH	0.50	0/989	0.72	0/1326
40	HH	0.45	0/989	0.66	0/1326
41	BI	0.52	0/1034	0.77	0/1375
41	DI	0.49	0/1034	0.72	1/1375 (0.1%)
41	FI	0.52	0/1034	0.80	0/1375

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
41	HI	0.56	0/1034	0.76	1/1375 (0.1%)
42	BJ	0.53	0/796	0.73	1/1077 (0.1%)
42	DJ	0.55	0/796	0.75	0/1077
42	FJ	0.55	0/796	0.78	0/1077
42	HJ	0.54	0/796	0.77	0/1077
43	BK	0.59	0/893	0.81	0/1205
43	DK	0.51	0/893	0.80	1/1205 (0.1%)
43	FK	0.52	0/893	0.72	0/1205
43	HK	0.71	0/893	0.92	2/1205 (0.2%)
44	BL	0.55	0/969	0.78	0/1300
44	DL	0.54	0/969	0.79	0/1300
44	FL	0.51	0/969	0.75	1/1300 (0.1%)
44	HL	0.50	0/969	0.78	0/1300
45	BM	0.48	0/892	0.72	0/1193
45	DM	0.48	0/892	0.70	0/1193
45	FM	0.46	0/892	0.72	0/1193
45	HM	0.60	0/892	0.83	0/1193
46	BN	0.53	0/785	0.73	0/1043
46	DN	0.53	0/785	0.68	0/1043
46	FN	0.59	0/785	0.80	0/1043
46	HN	0.48	0/785	0.67	0/1043
47	BO	0.46	0/722	0.65	0/964
47	DO	0.47	0/722	0.64	0/964
47	FO	0.44	0/722	0.63	0/964
47	HO	0.50	0/722	0.68	0/964
48	BP	0.51	0/659	0.74	0/884
48	DP	0.52	0/659	0.72	0/884
48	FP	0.48	0/659	0.70	0/884
48	HP	0.51	0/659	0.67	0/884
49	BQ	0.51	0/657	0.73	0/881
49	DQ	0.50	0/657	0.74	0/881
49	FQ	0.49	0/657	0.66	0/881
49	HQ	0.51	0/657	0.75	0/881
50	BR	0.53	0/462	0.67	0/621
50	DR	0.50	0/462	0.71	0/621
50	FR	0.48	0/462	0.63	0/621
50	HR	0.53	0/462	0.77	1/621 (0.2%)
51	BS	0.47	0/652	0.78	0/877
51	DS	0.49	0/652	0.70	0/877
51	FS	0.48	0/652	0.72	0/877
51	HS	0.66	0/652	0.79	0/877
52	BT	0.50	0/671	0.65	0/888
52	DT	0.49	0/671	0.64	0/888

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
52	FT	0.48	0/671	0.68	0/888
52	HT	0.49	0/671	0.72	0/888
53	BU	0.67	0/430	0.75	0/570
53	DU	0.67	0/430	0.83	1/570 (0.2%)
53	FU	0.69	0/430	0.83	0/570
53	HU	0.78	0/430	0.82	0/570
54	BV	0.48	0/5418	0.68	1/7329 (0.0%)
54	DV	0.46	0/5418	0.66	1/7329 (0.0%)
54	FV	0.57	0/5418	0.68	1/7329 (0.0%)
54	HV	0.50	0/5418	0.70	1/7329 (0.0%)
55	BW	2.44	1/11 (9.1%)	1.38	0/13
55	DW	2.31	1/11 (9.1%)	1.57	0/13
55	FW	2.44	1/11 (9.1%)	2.53	1/13 (7.7%)
All	All	0.68	73/635346 (0.0%)	1.13	2493/946873 (0.3%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
3	CC	0	1
3	EC	0	1
3	GC	0	1
4	CD	0	2
4	ED	0	1
4	GD	0	1
32	A5	0	2
41	FI	0	1
44	BL	0	1
44	DL	0	1
44	FL	0	1
44	HL	0	1
54	BV	0	2
54	DV	0	2
54	FV	0	2
54	HV	0	3
All	All	0	23

All (73) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	EA	984	A	N9-C4	-10.08	1.31	1.37
1	EA	528	A	N9-C4	-9.15	1.32	1.37
37	BE	94	VAL	CB-CG2	9.12	1.72	1.52
13	AM	13	HIS	CG-CD2	8.66	1.50	1.35
10	EJ	44	TYR	CD1-CE1	-7.92	1.27	1.39
2	EB	99	A	N9-C4	-7.52	1.33	1.37
1	EA	2447	G	C6-O6	7.51	1.30	1.24
22	CV	14	LYS	CD-CE	7.49	1.70	1.51
1	GA	1142	A	N9-C4	-7.45	1.33	1.37
27	E0	19	ASP	CB-CG	7.37	1.67	1.51
1	AA	984	A	N9-C4	-7.31	1.33	1.37
1	CA	984	A	N9-C4	-7.29	1.33	1.37
1	GA	528	A	N9-C4	-7.21	1.33	1.37
1	AA	783	A	N7-C5	-7.01	1.35	1.39
1	CA	783	A	N9-C4	-6.99	1.33	1.37
1	EA	984	A	C5-C6	-6.62	1.35	1.41
1	AA	1142	A	N9-C4	-6.61	1.33	1.37
1	CA	654	A	N9-C4	6.61	1.41	1.37
1	EA	1022	G	N7-C5	-6.56	1.35	1.39
1	EA	142	A	O3'-P	6.51	1.69	1.61
55	FW	3	SER	C-N	6.37	1.48	1.34
1	GA	142	A	O3'-P	6.35	1.68	1.61
1	AA	783	A	N9-C4	-6.34	1.34	1.37
55	BW	3	SER	C-N	6.34	1.48	1.34
1	AA	2053	G	N7-C5	-6.30	1.35	1.39
18	ER	86	GLN	CB-CG	6.29	1.69	1.52
1	EA	1263	U	C4-O4	6.28	1.28	1.23
1	EA	528	A	N3-C4	-6.26	1.31	1.34
1	EA	783	A	N9-C4	-6.25	1.34	1.37
1	EA	974	G	C5-C6	-6.23	1.36	1.42
55	DW	3	SER	C-N	6.22	1.48	1.34
10	GJ	44	TYR	CD1-CE1	-6.10	1.30	1.39
1	CA	783	A	N3-C4	-6.08	1.31	1.34
10	CJ	44	TYR	CD1-CE1	-6.01	1.30	1.39
1	EA	984	A	N7-C5	-5.93	1.35	1.39
1	EA	974	G	N9-C8	5.92	1.42	1.37
33	FA	461	A	N9-C4	5.89	1.41	1.37
1	EA	207	A	N9-C4	-5.86	1.34	1.37
1	EA	1142	A	N9-C4	-5.84	1.34	1.37
1	EA	808	G	N7-C5	-5.80	1.35	1.39
1	EA	752	A	C5-C6	-5.76	1.35	1.41
1	EA	793	A	N3-C4	-5.73	1.31	1.34
1	EA	2570	G	N9-C4	-5.71	1.33	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	EA	142	A	P-O5'	5.71	1.65	1.59
1	EA	972	A	C5-C6	-5.61	1.36	1.41
1	GA	808	G	N7-C5	-5.56	1.35	1.39
27	G0	19	ASP	CB-CG	5.54	1.63	1.51
1	GA	783	A	N9-C4	-5.52	1.34	1.37
1	GA	528	A	N3-C4	-5.48	1.31	1.34
1	GA	654	A	N9-C4	5.47	1.41	1.37
1	AA	2482	A	N9-C4	-5.42	1.34	1.37
1	EA	2250	G	N9-C8	5.41	1.41	1.37
1	GA	2183	A	N9-C4	5.33	1.41	1.37
1	GA	789	A	N9-C4	-5.33	1.34	1.37
1	CA	792	A	N9-C4	-5.32	1.34	1.37
1	EA	613	A	N9-C4	5.32	1.41	1.37
1	EA	734	A	N9-C4	-5.25	1.34	1.37
1	EA	1254	A	N3-C4	-5.25	1.31	1.34
1	CA	1902	C	N1-C6	-5.24	1.34	1.37
1	EA	251	A	N9-C4	-5.24	1.34	1.37
1	AA	896	A	N9-C4	5.18	1.41	1.37
1	CA	1899	A	N9-C4	-5.15	1.34	1.37
1	EA	972	A	N7-C5	-5.14	1.36	1.39
1	AA	984	A	C5-C6	-5.13	1.36	1.41
18	ER	86	GLN	CG-CD	5.12	1.62	1.51
29	E2	44	VAL	CA-CB	5.11	1.65	1.54
1	EA	1678	A	N3-C4	-5.10	1.31	1.34
1	GA	783	A	N3-C4	-5.10	1.31	1.34
16	EP	50	ARG	CB-CG	5.09	1.66	1.52
1	EA	1983	G	N9-C4	-5.08	1.33	1.38
1	GA	311	A	N9-C4	5.07	1.40	1.37
1	EA	752	A	N7-C5	-5.04	1.36	1.39
1	AA	1665	A	N7-C5	-5.02	1.36	1.39

All (2493) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	834	G	N1-C6-O6	16.23	129.64	119.90
1	EA	984	A	C2-N3-C4	-15.83	102.68	110.60
1	EA	974	G	C4-C5-N7	15.17	116.87	110.80
1	AA	2544	G	N1-C6-O6	14.98	128.89	119.90
1	AA	2053	G	N1-C6-O6	14.67	128.70	119.90
1	AA	984	A	C2-N3-C4	-13.99	103.61	110.60
1	AA	2447	G	N1-C6-O6	13.87	128.22	119.90
1	CA	984	A	C2-N3-C4	-13.82	103.69	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1073	A	N1-C6-N6	-13.64	110.42	118.60
1	EA	974	G	C5-N7-C8	-13.56	97.52	104.30
1	EA	2447	G	C5-C6-N1	-13.53	104.73	111.50
1	EA	974	G	C6-C5-N7	-13.43	122.34	130.40
1	AA	2544	G	C6-C5-N7	-12.49	122.91	130.40
1	GA	984	A	C2-N3-C4	-12.29	104.45	110.60
1	EA	834	G	C5-C6-O6	-12.08	121.35	128.60
1	EA	1079	C	OP1-P-O3'	-11.91	78.99	105.20
1	CA	1087	G	OP1-P-O3'	-11.63	79.62	105.20
1	EA	1779	U	O5'-P-OP1	-11.48	95.37	105.70
1	EA	984	A	N3-C4-C5	11.48	134.83	126.80
1	GA	752	A	N1-C6-N6	11.17	125.30	118.60
1	EA	2447	G	N1-C6-O6	11.09	126.55	119.90
1	EA	2250	G	C2-N3-C4	-11.06	106.37	111.90
1	EA	829	A	O5'-P-OP2	-10.99	95.81	105.70
1	EA	974	G	N1-C6-O6	10.89	126.44	119.90
1	AA	2592	G	O5'-P-OP2	-10.85	95.93	105.70
1	CA	2544	G	N1-C6-O6	10.73	126.34	119.90
1	GA	834	G	N1-C6-O6	10.72	126.33	119.90
1	CA	752	A	N1-C6-N6	10.69	125.02	118.60
1	EA	2250	G	C5-N7-C8	-10.69	98.96	104.30
1	GA	1865	U	OP1-P-O3'	-10.66	81.75	105.20
1	GA	1866	A	OP1-P-OP2	10.65	135.57	119.60
1	GA	1925	C	C6-N1-C2	-10.65	116.04	120.30
1	AA	2447	G	C5-C6-O6	-10.55	122.27	128.60
1	EA	974	G	N7-C8-N9	10.50	118.35	113.10
1	CA	834	G	N1-C6-O6	10.48	126.19	119.90
1	EA	2076	U	C5-C4-O4	10.46	132.18	125.90
16	AP	52	ARG	NE-CZ-NH1	10.39	125.50	120.30
1	AA	738	G	O5'-P-OP2	-10.37	96.36	105.70
1	GA	834	G	C5-C6-N1	-10.35	106.32	111.50
1	AA	1073	A	C5-C6-N6	10.29	131.93	123.70
1	EA	2250	G	N3-C4-C5	10.27	133.74	128.60
1	EA	834	G	C6-C5-N7	-10.24	124.25	130.40
16	CP	52	ARG	NE-CZ-NH1	10.17	125.38	120.30
2	EB	66	A	N1-C6-N6	10.09	124.65	118.60
1	AA	1073	A	C5-N7-C8	10.07	108.93	103.90
1	AA	2053	G	C6-C5-N7	-10.03	124.38	130.40
1	EA	783	A	C2-N3-C4	-10.02	105.59	110.60
1	AA	2061	G	N1-C6-O6	10.01	125.91	119.90
1	EA	984	A	N1-C6-N6	10.01	124.61	118.60
1	EA	984	A	C5-C6-N1	-9.99	112.70	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1190	G	N1-C6-O6	9.97	125.88	119.90
1	EA	1606	C	N3-C2-O2	-9.96	114.92	121.90
33	HA	5	U	C2-N1-C1'	9.96	129.65	117.70
1	CA	2061	G	N1-C6-O6	9.95	125.87	119.90
1	EA	2053	G	N1-C6-O6	9.94	125.86	119.90
1	AA	1533	C	C6-N1-C2	-9.90	116.34	120.30
1	EA	2689	U	C5-C4-O4	9.88	131.82	125.90
1	EA	2511	U	O5'-P-OP2	-9.79	96.89	105.70
1	GA	2592	G	O5'-P-OP2	-9.74	96.93	105.70
1	EA	1779	U	N3-C4-O4	-9.71	112.61	119.40
1	AA	1073	A	C6-C5-N7	9.70	139.09	132.30
1	EA	528	A	C2-N3-C4	-9.68	105.76	110.60
17	EQ	29	ARG	NE-CZ-NH1	9.65	125.12	120.30
1	EA	2447	G	C4-C5-C6	9.65	124.59	118.80
1	EA	1027	A	N1-C6-N6	9.59	124.36	118.60
1	EA	974	G	C5-C6-O6	-9.58	122.85	128.60
1	CA	2250	G	C2-N3-C4	-9.57	107.12	111.90
1	EA	1263	U	N3-C4-C5	-9.52	108.89	114.60
1	GA	1865	U	OP2-P-O3'	-9.50	84.31	105.20
1	GA	1606	C	N3-C2-O2	-9.49	115.26	121.90
1	GA	1606	C	N1-C2-O2	9.40	124.54	118.90
1	EA	1943	U	C5-C4-O4	9.38	131.53	125.90
1	CA	2250	G	C4-C5-N7	9.33	114.53	110.80
1	AA	2361	G	O5'-P-OP2	-9.31	97.32	105.70
33	BA	251	G	N1-C6-O6	9.31	125.49	119.90
1	CA	546	U	O4'-C1'-N1	9.29	115.63	108.20
1	CA	1088	A	OP1-P-OP2	9.28	133.51	119.60
1	GA	1925	C	C5-C6-N1	9.27	125.64	121.00
32	A5	117	LEU	C-N-CA	9.27	144.88	121.70
1	AA	783	A	N7-C8-N9	9.26	118.43	113.80
1	EA	37	C	O5'-P-OP2	-9.24	97.38	105.70
1	EA	783	A	C5-N7-C8	-9.23	99.29	103.90
1	CA	2105	U	C5-C6-N1	9.22	127.31	122.70
1	EA	2544	G	N1-C6-O6	9.20	125.42	119.90
1	AA	2544	G	C5-C6-O6	-9.18	123.09	128.60
33	DA	207	C	C6-N1-C2	-9.17	116.63	120.30
32	A5	92	ALA	C-N-CA	9.15	144.58	121.70
1	EA	1606	C	N1-C2-O2	9.15	124.39	118.90
1	EA	1779	U	C5-C4-O4	9.14	131.39	125.90
1	EA	752	A	N1-C6-N6	9.14	124.08	118.60
12	AL	82	LEU	CA-CB-CG	9.13	136.31	115.30
12	CL	82	LEU	CA-CB-CG	9.13	136.30	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	808	G	N1-C6-O6	9.13	125.38	119.90
1	GA	752	A	O4'-C1'-N9	9.11	115.49	108.20
1	GA	834	G	N7-C8-N9	9.10	117.65	113.10
1	AA	2053	G	N3-C2-N2	-9.04	113.57	119.90
1	GA	834	G	C8-N9-C4	-9.04	102.79	106.40
1	CA	1349	C	O5'-P-OP2	-9.02	97.58	105.70
32	E5	93	ALA	C-N-CA	9.01	144.21	121.70
1	EA	984	A	N3-C4-N9	-9.00	120.20	127.40
1	EA	2275	C	C6-N1-C2	-9.00	116.70	120.30
1	AA	1073	A	C4-C5-N7	-9.00	106.20	110.70
1	AA	783	A	C5-N7-C8	-8.96	99.42	103.90
1	EA	694	U	N3-C2-O2	-8.95	115.93	122.20
1	EA	62	U	N3-C2-O2	-8.92	115.96	122.20
1	EA	811	U	O5'-P-OP1	-8.92	97.67	105.70
1	AA	2053	G	C5-C6-N1	-8.92	107.04	111.50
1	EA	460	A	O5'-P-OP1	-8.91	97.68	105.70
1	EA	542	C	N3-C4-C5	-8.89	118.34	121.90
1	EA	2250	G	C4-C5-N7	8.87	114.35	110.80
1	EA	797	G	O5'-P-OP2	-8.86	97.73	105.70
1	CA	974	G	C6-C5-N7	-8.85	125.09	130.40
33	FA	51	A	P-O3'-C3'	8.85	130.31	119.70
1	AA	1958	C	N3-C2-O2	-8.84	115.72	121.90
1	GA	834	G	C4-C5-C6	8.81	124.09	118.80
1	EA	780	G	C8-N9-C4	-8.80	102.88	106.40
1	CA	2250	G	N1-C6-O6	8.79	125.17	119.90
1	EA	784	G	O4'-C1'-N9	-8.78	101.17	108.20
1	CA	2250	G	C5-N7-C8	-8.77	99.92	104.30
1	EA	972	A	N1-C6-N6	8.74	123.85	118.60
1	EA	2779	U	O5'-P-OP1	-8.74	97.83	105.70
1	CA	1913	A	C5-N7-C8	8.73	108.26	103.90
1	EA	2250	G	N3-C4-N9	-8.73	120.76	126.00
1	CA	1943	U	C5-C4-O4	8.72	131.13	125.90
1	GA	2572	A	O5'-P-OP2	-8.72	97.85	105.70
1	AA	1073	A	N7-C8-N9	-8.71	109.44	113.80
32	A5	93	ALA	C-N-CA	8.70	143.45	121.70
1	GA	1509	A	O4'-C1'-N9	8.69	115.16	108.20
1	CA	984	A	N3-C4-C5	8.65	132.85	126.80
1	EA	62	U	N1-C2-O2	8.64	128.85	122.80
1	CA	974	G	N7-C8-N9	8.62	117.41	113.10
2	CB	79	G	N3-C2-N2	8.62	125.94	119.90
1	GA	783	A	C5-N7-C8	-8.59	99.61	103.90
1	CA	2250	G	N3-C4-C5	8.57	132.88	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AC	176	ARG	NE-CZ-NH2	8.55	124.58	120.30
1	EA	1355	G	N1-C6-O6	8.55	125.03	119.90
5	EE	44	ARG	NE-CZ-NH2	8.55	124.58	120.30
1	AA	783	A	N1-C6-N6	8.54	123.73	118.60
32	A5	77	VAL	C-N-CA	8.53	140.21	122.30
1	EA	550	C	O5'-P-OP2	-8.52	98.03	105.70
1	EA	834	G	N3-C2-N2	-8.46	113.98	119.90
2	EB	66	A	N9-C4-C5	-8.45	102.42	105.80
1	AA	783	A	C6-C5-N7	-8.43	126.40	132.30
1	EA	2250	G	N7-C8-N9	8.40	117.30	113.10
1	CA	2443	C	C6-N1-C2	-8.40	116.94	120.30
1	EA	2076	U	N3-C2-O2	-8.36	116.35	122.20
1	EA	1943	U	N3-C4-O4	-8.33	113.57	119.40
1	AA	2358	A	N1-C6-N6	-8.33	113.60	118.60
1	GA	528	A	C2-N3-C4	-8.31	106.44	110.60
1	AA	748	G	O4'-C1'-N9	8.31	114.85	108.20
33	HA	1087	G	C6-C5-N7	-8.31	125.42	130.40
32	E5	77	VAL	C-N-CA	8.26	139.65	122.30
1	CA	1606	C	N1-C2-O2	8.25	123.85	118.90
1	EA	984	A	C5-N7-C8	-8.25	99.78	103.90
1	EA	1263	U	C6-N1-C2	-8.24	116.05	121.00
1	EA	2385	C	O5'-P-OP2	-8.21	98.31	105.70
1	EA	2076	U	N3-C4-O4	-8.20	113.66	119.40
5	AE	40	ARG	NE-CZ-NH1	8.19	124.39	120.30
1	EA	1332	G	C5-C6-O6	-8.15	123.71	128.60
33	HA	481	G	C5-C6-O6	-8.14	123.71	128.60
33	BA	51	A	P-O3'-C3'	8.14	129.47	119.70
1	CA	2544	G	C6-C5-N7	-8.14	125.52	130.40
1	AA	2544	G	C4-C5-C6	8.13	123.68	118.80
32	E5	117	LEU	C-N-CA	8.13	142.02	121.70
33	BA	1507	A	O5'-P-OP1	-8.12	98.39	105.70
1	CA	654	A	C2-N3-C4	8.12	114.66	110.60
1	AA	795	C	O5'-P-OP1	-8.10	98.41	105.70
1	EA	1006	C	N1-C2-O2	-8.10	114.04	118.90
1	CA	752	A	C4-C5-N7	8.09	114.75	110.70
1	CA	1253	A	O5'-P-OP1	-8.09	98.42	105.70
1	EA	2447	G	C6-C5-N7	-8.09	125.55	130.40
1	AA	2053	G	C4-C5-C6	8.08	123.65	118.80
1	EA	941	A	C8-N9-C4	8.08	109.03	105.80
1	AA	974	G	C6-C5-N7	-8.06	125.56	130.40
33	BA	328	C	N1-C2-O2	8.06	123.73	118.90
1	CA	984	A	C5-C6-N1	-8.05	113.68	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	808	G	C6-C5-N7	-8.04	125.58	130.40
1	AA	984	A	N1-C6-N6	8.04	123.42	118.60
1	AA	974	G	C4-C5-N7	8.03	114.01	110.80
1	GA	834	G	C6-C5-N7	-8.00	125.60	130.40
1	EA	961	C	O5'-P-OP2	-7.99	98.51	105.70
32	E5	92	ALA	C-N-CA	7.99	141.66	121.70
1	CA	974	G	C4-N9-C1'	7.98	136.88	126.50
1	CA	752	A	C5-C6-N6	-7.97	117.32	123.70
1	GA	752	A	C5-C6-N6	-7.96	117.33	123.70
33	BA	1101	A	P-O3'-C3'	7.96	129.25	119.70
23	AW	76	ARG	NE-CZ-NH2	7.95	124.28	120.30
1	CA	834	G	C5-C6-O6	-7.94	123.83	128.60
1	CA	2224	G	C5-C6-O6	-7.93	123.84	128.60
43	DK	128	ARG	NE-CZ-NH1	7.93	124.26	120.30
1	EA	520	G	N1-C6-O6	-7.92	115.15	119.90
1	GA	2071	A	O5'-P-OP2	-7.92	98.57	105.70
1	CA	671	C	C6-N1-C2	-7.91	117.14	120.30
1	EA	1190	G	C5-N7-C8	-7.90	100.35	104.30
1	CA	2038	G	N1-C6-O6	7.89	124.63	119.90
1	GA	808	G	C5-C6-O6	-7.89	123.87	128.60
32	A5	51	TYR	C-N-CA	7.88	141.39	121.70
1	EA	2146	C	OP1-P-O3'	7.88	122.53	105.20
1	AA	1936	A	C2-N3-C4	-7.87	106.67	110.60
1	EA	1073	A	O5'-P-OP1	-7.86	98.63	105.70
1	GA	984	A	N1-C2-N3	7.84	133.22	129.30
33	HA	1087	G	N7-C8-N9	7.84	117.02	113.10
33	DA	1099	G	C5-C6-O6	7.84	133.30	128.60
32	E5	54	VAL	CG1-CB-CG2	7.82	123.42	110.90
1	CA	834	G	C6-C5-N7	-7.80	125.72	130.40
1	EA	210	C	C6-N1-C2	7.80	123.42	120.30
1	GA	2402	U	O4'-C1'-N1	7.80	114.44	108.20
4	GD	151	THR	C-N-CD	7.80	144.78	128.40
32	E5	72	LEU	C-N-CA	7.80	141.19	121.70
33	HA	1086	U	N3-C2-O2	-7.79	116.75	122.20
1	EA	865	C	C6-N1-C2	7.79	123.42	120.30
1	EA	528	A	N3-C4-N9	-7.79	121.17	127.40
1	EA	694	U	C6-N1-C2	-7.79	116.33	121.00
33	BA	251	G	C5-C6-O6	-7.76	123.94	128.60
1	GA	1940	U	O5'-P-OP2	-7.75	98.72	105.70
1	EA	783	A	C4-C5-N7	7.75	114.57	110.70
1	CA	1190	G	C5-C6-O6	-7.73	123.96	128.60
33	FA	1279	G	N7-C8-N9	7.73	116.96	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	863	A	O5'-P-OP2	-7.72	98.75	105.70
1	EA	821	A	O5'-P-OP2	-7.71	98.76	105.70
1	EA	2551	C	OP2-P-O3'	7.70	122.15	105.20
33	DA	1279	G	C8-N9-C4	-7.70	103.32	106.40
1	EA	1452	G	N3-C4-C5	7.70	132.45	128.60
1	EA	2053	G	C5-C6-O6	-7.69	123.98	128.60
1	EA	972	A	C5-C6-N6	-7.69	117.55	123.70
1	AA	783	A	C8-N9-C4	-7.68	102.73	105.80
1	CA	1793	C	O5'-P-OP2	-7.68	98.79	105.70
33	HA	51	A	P-O3'-C3'	7.67	128.91	119.70
1	AA	1257	C	N1-C2-O2	-7.67	114.30	118.90
1	CA	2290	G	N1-C6-O6	7.67	124.50	119.90
1	GA	743	A	O5'-P-OP2	-7.67	98.80	105.70
1	CA	1779	U	C5-C6-N1	-7.66	118.87	122.70
1	EA	2272	U	O5'-P-OP2	-7.66	98.81	105.70
32	E5	47	GLU	C-N-CA	7.65	140.83	121.70
1	CA	371	A	O5'-P-OP1	-7.65	98.82	105.70
33	DA	1099	G	N1-C6-O6	-7.65	115.31	119.90
1	CA	2544	G	C5-C6-N1	-7.64	107.68	111.50
1	GA	1142	A	C2-N3-C4	-7.64	106.78	110.60
1	AA	1534	U	C2-N1-C1'	7.64	126.86	117.70
1	AA	2253	G	N1-C6-O6	7.63	124.48	119.90
33	FA	1370	G	N1-C6-O6	7.63	124.48	119.90
1	GA	1072	C	N3-C2-O2	-7.63	116.56	121.90
1	CA	974	G	C8-N9-C4	-7.62	103.35	106.40
1	EA	794	A	N1-C6-N6	7.62	123.17	118.60
1	EA	528	A	N3-C4-C5	7.62	132.13	126.80
32	E5	119	PRO	C-N-CA	7.62	140.75	121.70
1	GA	2571	U	N3-C4-O4	7.61	124.73	119.40
1	EA	2515	C	N1-C2-O2	-7.61	114.33	118.90
1	EA	2054	A	O5'-P-OP1	-7.60	98.86	105.70
1	GA	586	A	O5'-P-OP1	-7.60	98.86	105.70
1	EA	2071	A	O5'-P-OP2	-7.59	98.87	105.70
1	EA	967	U	C6-N1-C2	-7.59	116.45	121.00
1	CA	249	C	N3-C4-N4	7.58	123.31	118.00
1	EA	527	C	N1-C2-O2	7.58	123.44	118.90
32	E5	27	VAL	CG1-CB-CG2	7.57	123.02	110.90
32	A5	49	GLY	C-N-CA	7.57	140.62	121.70
33	DA	51	A	P-O3'-C3'	7.56	128.78	119.70
1	CA	1898	U	C5-C4-O4	7.56	130.43	125.90
1	EA	752	A	C5-C6-N6	-7.55	117.66	123.70
1	CA	183	C	C6-N1-C2	-7.55	117.28	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	996	A	O5'-P-OP1	-7.55	98.90	105.70
1	GA	752	A	C4-C5-N7	7.55	114.47	110.70
32	E5	49	GLY	C-N-CA	7.55	140.57	121.70
1	EA	470	A	OP1-P-OP2	-7.54	108.29	119.60
1	AA	1713	A	N1-C6-N6	7.53	123.12	118.60
1	AA	2447	G	O5'-P-OP1	-7.52	98.93	105.70
1	EA	2443	C	N1-C2-O2	-7.52	114.39	118.90
1	AA	1069	A	O4'-C1'-N9	7.51	114.21	108.20
1	AA	2482	A	N1-C6-N6	7.51	123.11	118.60
1	CA	1656	C	N1-C2-O2	-7.51	114.39	118.90
1	CA	1030	C	C6-N1-C2	7.51	123.30	120.30
1	CA	974	G	C5-N7-C8	-7.49	100.56	104.30
32	E5	123	ILE	CG1-CB-CG2	7.49	127.88	111.40
1	EA	974	G	C2-N3-C4	-7.49	108.16	111.90
1	AA	1142	A	C2-N3-C4	-7.49	106.86	110.60
32	A5	28	ALA	C-N-CA	7.48	140.40	121.70
1	EA	2557	G	N1-C6-O6	-7.48	115.41	119.90
1	GA	1413	A	N1-C6-N6	7.48	123.09	118.60
1	GA	984	A	N1-C6-N6	7.44	123.07	118.60
1	EA	30	G	O5'-P-OP1	-7.44	99.00	105.70
2	EB	66	A	C2-N3-C4	-7.44	106.88	110.60
1	EA	784	G	P-O3'-C3'	7.44	128.62	119.70
33	HA	5	U	C6-N1-C1'	-7.44	110.79	121.20
1	EA	1252	G	O5'-P-OP1	7.43	119.62	110.70
1	CA	783	A	C5-N7-C8	-7.43	100.18	103.90
1	EA	570	G	N1-C6-O6	7.43	124.36	119.90
1	AA	923	G	N3-C4-N9	7.43	130.46	126.00
33	DA	1279	G	N7-C8-N9	7.43	116.81	113.10
1	EA	974	G	C8-N9-C4	-7.42	103.43	106.40
1	CA	1970	A	C8-N9-C4	-7.42	102.83	105.80
1	EA	1829	A	O5'-P-OP1	-7.42	99.02	105.70
32	A5	47	GLU	C-N-CA	7.42	140.24	121.70
33	BA	1362	A	C8-N9-C4	7.42	108.77	105.80
1	GA	2146	C	C6-N1-C2	-7.42	117.33	120.30
1	EA	1141	U	C5-C6-N1	7.41	126.41	122.70
1	AA	586	A	O5'-P-OP1	-7.41	99.03	105.70
1	AA	2061	G	O5'-P-OP2	-7.41	99.03	105.70
20	GT	12	ARG	NE-CZ-NH1	7.41	124.00	120.30
1	GA	504	A	O4'-C1'-N9	7.40	114.12	108.20
1	EA	1823	G	N3-C2-N2	-7.39	114.72	119.90
1	AA	2445	G	C5-C6-O6	-7.39	124.17	128.60
1	CA	1061	U	N3-C2-O2	-7.39	117.03	122.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	DA	1370	G	C5-C6-N1	-7.38	107.81	111.50
1	EA	2150	C	C6-N1-C2	-7.38	117.35	120.30
1	EA	825	A	N1-C6-N6	-7.38	114.17	118.60
2	AB	3	C	C6-N1-C2	-7.37	117.35	120.30
1	EA	984	A	C4-C5-N7	7.37	114.38	110.70
1	EA	2584	U	N3-C4-O4	7.36	124.55	119.40
1	EA	2584	U	C5-C4-O4	-7.36	121.49	125.90
1	GA	784	G	O4'-C1'-N9	-7.35	102.32	108.20
1	EA	778	G	N1-C6-O6	7.35	124.31	119.90
1	CA	1087	G	OP2-P-O3'	-7.34	89.04	105.20
1	CA	372	G	N1-C6-O6	7.34	124.30	119.90
33	HA	1087	G	C4-N9-C1'	7.34	136.04	126.50
1	EA	578	G	C6-C5-N7	-7.33	126.00	130.40
1	AA	974	G	N7-C8-N9	7.32	116.76	113.10
1	CA	793	A	N1-C6-N6	7.32	122.99	118.60
32	A5	27	VAL	CG1-CB-CG2	7.31	122.60	110.90
24	AX	44	ARG	NE-CZ-NH2	7.31	123.96	120.30
1	CA	2544	G	C2-N3-C4	-7.31	108.25	111.90
33	FA	101	A	N1-C6-N6	7.31	122.98	118.60
1	EA	2510	C	C6-N1-C2	-7.30	117.38	120.30
1	GA	1779	U	C5-C4-O4	7.29	130.28	125.90
2	AB	101	A	C8-N9-C4	7.28	108.71	105.80
33	HA	1101	A	P-O3'-C3'	7.27	128.43	119.70
1	EA	1027	A	C6-C5-N7	-7.27	127.21	132.30
1	AA	1672	A	N9-C4-C5	-7.26	102.89	105.80
1	EA	626	A	N1-C6-N6	7.26	122.96	118.60
1	CA	2594	C	C6-N1-C2	-7.26	117.40	120.30
2	EB	102	G	OP2-P-O3'	7.26	121.16	105.20
1	AA	1069	A	N1-C6-N6	7.25	122.95	118.60
1	EA	520	G	C5-C6-O6	7.25	132.95	128.60
1	EA	2326	C	C6-N1-C2	-7.25	117.40	120.30
1	GA	834	G	C4-N9-C1'	7.25	135.92	126.50
1	GA	404	A	N1-C6-N6	7.24	122.95	118.60
33	HA	1299	A	N1-C6-N6	7.24	122.95	118.60
1	EA	2523	G	C8-N9-C4	-7.24	103.50	106.40
1	AA	2053	G	C5-C6-O6	-7.24	124.26	128.60
54	BV	93	VAL	N-CA-C	-7.23	91.48	111.00
1	EA	1983	G	C8-N9-C4	7.23	109.29	106.40
1	EA	2698	U	C5-C4-O4	7.23	130.24	125.90
54	DV	93	VAL	N-CA-C	-7.22	91.51	111.00
1	GA	1025	G	P-O3'-C3'	7.22	128.36	119.70
1	EA	2362	C	N1-C2-O2	-7.21	114.57	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	982	C	N1-C2-O2	7.20	123.22	118.90
1	AA	974	G	C5-N7-C8	-7.20	100.70	104.30
33	BA	1362	A	O4'-C1'-N9	7.20	113.96	108.20
1	EA	783	A	N1-C6-N6	7.19	122.92	118.60
33	FA	1101	A	P-O3'-C3'	7.18	128.32	119.70
1	EA	2590	A	N1-C6-N6	-7.18	114.29	118.60
1	EA	2689	U	N3-C4-O4	-7.18	114.38	119.40
1	AA	781	A	O5'-P-OP1	-7.18	99.24	105.70
1	AA	923	G	N3-C4-C5	-7.17	125.01	128.60
1	EA	2579	C	N3-C4-C5	7.17	124.77	121.90
33	HA	1279	G	C8-N9-C4	-7.17	103.53	106.40
33	HA	1454	G	O5'-P-OP1	-7.17	99.25	105.70
1	EA	2290	G	N1-C6-O6	7.16	124.19	119.90
1	EA	301	G	P-O3'-C3'	7.16	128.29	119.70
1	AA	2544	G	C4-N9-C1'	7.15	135.79	126.50
1	EA	14	A	N1-C6-N6	7.13	122.88	118.60
1	GA	1378	A	P-O3'-C3'	7.13	128.26	119.70
33	FA	1279	G	C5-C6-O6	-7.13	124.33	128.60
1	EA	62	U	C2-N1-C1'	7.12	126.24	117.70
33	BA	1054	C	C6-N1-C2	-7.12	117.45	120.30
1	CA	974	G	C4-C5-N7	7.12	113.65	110.80
1	CA	1779	U	O4'-C1'-N1	7.11	113.89	108.20
1	GA	974	G	N7-C8-N9	7.11	116.65	113.10
1	AA	2601	C	C6-N1-C2	-7.10	117.46	120.30
33	DA	1099	G	C4-C5-N7	-7.10	107.96	110.80
1	GA	783	A	N1-C6-N6	7.10	122.86	118.60
33	HA	481	G	N9-C4-C5	-7.10	102.56	105.40
1	EA	1618	A	C8-N9-C4	-7.09	102.96	105.80
1	EA	1784	A	C8-N9-C4	7.09	108.64	105.80
1	AA	248	G	O5'-P-OP2	-7.08	99.33	105.70
32	E5	51	TYR	C-N-CA	7.08	139.40	121.70
1	CA	677	A	OP1-P-O3'	7.08	120.76	105.20
33	BA	250	A	P-O3'-C3'	7.07	128.19	119.70
1	EA	801	G	N3-C4-C5	-7.07	125.06	128.60
1	GA	783	A	N7-C8-N9	7.06	117.33	113.80
1	EA	914	G	N1-C6-O6	7.06	124.14	119.90
1	GA	2452	C	C6-N1-C2	7.06	123.12	120.30
1	EA	2053	G	C6-C5-N7	-7.06	126.17	130.40
33	HA	481	G	N3-C4-N9	7.06	130.24	126.00
32	E5	50	VAL	C-N-CA	7.06	139.34	121.70
1	CA	974	G	N1-C6-O6	7.05	124.13	119.90
33	BA	495	A	N1-C6-N6	-7.05	114.37	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	784	G	P-O3'-C3'	7.05	128.16	119.70
33	BA	188	C	C6-N1-C2	-7.05	117.48	120.30
1	EA	2585	U	N3-C2-O2	-7.05	117.26	122.20
1	EA	565	C	C5-C4-N4	-7.05	115.27	120.20
1	GA	1824	G	N1-C6-O6	-7.04	115.67	119.90
1	EA	752	A	C4-C5-N7	7.04	114.22	110.70
33	FA	1061	G	O5'-P-OP2	-7.04	99.36	105.70
32	A5	72	LEU	C-N-CA	7.04	139.29	121.70
1	CA	1606	C	N3-C2-O2	-7.03	116.98	121.90
1	AA	140	C	N1-C2-O2	7.03	123.12	118.90
1	GA	1189	A	N1-C6-N6	7.02	122.81	118.60
33	BA	684	U	C6-N1-C2	-7.02	116.79	121.00
1	EA	2729	G	N3-C4-C5	-7.01	125.09	128.60
1	CA	1963	U	N3-C2-O2	-7.01	117.29	122.20
1	CA	1247	A	P-O3'-C3'	7.00	128.10	119.70
1	CA	1584	U	C5-C6-N1	6.99	126.20	122.70
1	EA	1079	C	OP2-P-O3'	-6.99	89.82	105.20
1	CA	249	C	C5-C4-N4	-6.99	115.31	120.20
1	EA	14	A	N9-C4-C5	-6.98	103.01	105.80
1	EA	776	G	N3-C4-C5	-6.98	125.11	128.60
33	BA	481	G	N1-C6-O6	-6.98	115.71	119.90
33	FA	328	C	N1-C2-O2	6.98	123.09	118.90
1	CA	1726	C	C5-C4-N4	-6.98	115.31	120.20
33	DA	1101	A	P-O3'-C3'	6.97	128.07	119.70
1	AA	1257	C	N3-C2-O2	6.97	126.78	121.90
1	CA	984	A	N1-C6-N6	6.96	122.78	118.60
1	AA	2544	G	C5-C6-N1	-6.96	108.02	111.50
1	CA	1088	A	P-O3'-C3'	6.96	128.05	119.70
33	FA	250	A	P-O3'-C3'	6.96	128.05	119.70
32	A5	119	PRO	C-N-CA	6.96	139.10	121.70
1	AA	984	A	N3-C4-C5	6.96	131.67	126.80
32	A5	50	VAL	C-N-CA	6.95	139.08	121.70
1	EA	752	A	C6-C5-N7	-6.95	127.43	132.30
32	E5	81	LEU	CB-CG-CD2	6.95	122.81	111.00
1	CA	2242	G	C8-N9-C4	-6.95	103.62	106.40
17	CQ	29	ARG	NE-CZ-NH1	6.95	123.77	120.30
1	EA	971	G	N1-C6-O6	6.94	124.06	119.90
1	CA	752	A	C5-N7-C8	-6.94	100.43	103.90
1	GA	2447	G	C5-C6-O6	-6.94	124.44	128.60
1	EA	14	A	C8-N9-C4	6.93	108.57	105.80
1	EA	55	G	N9-C4-C5	6.93	108.17	105.40
32	A5	81	LEU	CB-CG-CD2	6.93	122.78	111.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	546	U	N3-C2-O2	-6.93	117.35	122.20
33	HA	913	A	P-O3'-C3'	6.93	128.01	119.70
1	EA	783	A	N7-C8-N9	6.92	117.26	113.80
2	EB	13	G	O5'-P-OP2	-6.92	99.47	105.70
1	CA	1725	U	C5-C6-N1	6.92	126.16	122.70
1	EA	528	A	C5-N7-C8	-6.92	100.44	103.90
1	AA	1672	A	C2-N3-C4	-6.91	107.15	110.60
1	EA	695	G	C5-C6-N1	-6.90	108.05	111.50
1	AA	542	C	N3-C4-C5	-6.90	119.14	121.90
1	AA	598	U	O5'-P-OP2	-6.90	99.49	105.70
1	AA	776	G	C5-C6-O6	6.90	132.74	128.60
33	BA	1362	A	N7-C8-N9	-6.89	110.35	113.80
1	AA	2447	G	C6-C5-N7	-6.89	126.27	130.40
1	EA	404	A	N1-C6-N6	6.89	122.73	118.60
1	EA	1088	A	P-O3'-C3'	6.89	127.97	119.70
1	EA	959	A	O5'-P-OP1	-6.89	99.50	105.70
1	AA	1737	G	N3-C4-C5	-6.88	125.16	128.60
1	AA	565	C	N1-C2-O2	6.88	123.03	118.90
1	EA	761	A	O5'-P-OP2	-6.88	99.51	105.70
33	HA	1362	A	O4'-C1'-N9	6.87	113.69	108.20
1	AA	2061	G	C5-C6-O6	-6.87	124.48	128.60
1	AA	984	A	C5-C6-N1	-6.87	114.27	117.70
1	EA	198	C	N3-C4-C5	6.87	124.65	121.90
1	EA	1619	G	O5'-P-OP2	-6.86	99.52	105.70
1	AA	331	C	N1-C2-O2	6.86	123.01	118.90
33	BA	1279	G	C8-N9-C4	-6.86	103.66	106.40
14	CN	71	ARG	NE-CZ-NH2	6.85	123.73	120.30
1	EA	397	U	O5'-P-OP2	-6.85	99.53	105.70
1	GA	784	G	P-O3'-C3'	6.85	127.92	119.70
1	GA	2510	C	O5'-P-OP2	-6.85	99.53	105.70
33	FA	472	U	C5-C6-N1	6.85	126.12	122.70
1	AA	984	A	N1-C2-N3	6.84	132.72	129.30
1	CA	1027	A	N1-C6-N6	6.84	122.71	118.60
1	CA	2775	G	N1-C6-O6	6.84	124.01	119.90
33	FA	817	C	O5'-P-OP2	6.84	118.91	110.70
1	AA	1378	A	N1-C6-N6	-6.84	114.50	118.60
1	GA	2360	G	N1-C6-O6	6.84	124.00	119.90
1	AA	1066	U	N3-C2-O2	-6.84	117.41	122.20
1	EA	2387	U	O5'-P-OP1	-6.84	99.54	105.70
33	HA	1087	G	C8-N9-C4	-6.84	103.67	106.40
1	EA	2788	C	C6-N1-C2	-6.83	117.57	120.30
33	FA	983	A	C2-N3-C4	6.83	114.02	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	2592	G	O5'-P-OP2	-6.83	99.55	105.70
1	EA	1469	A	N1-C6-N6	-6.83	114.50	118.60
1	CA	559	G	O5'-P-OP1	-6.83	99.56	105.70
1	CA	573	U	C5-C6-N1	6.82	126.11	122.70
1	GA	812	C	N3-C2-O2	6.82	126.68	121.90
1	GA	974	G	C5-N7-C8	-6.82	100.89	104.30
1	CA	184	C	N1-C2-O2	-6.82	114.81	118.90
1	EA	512	G	O4'-C1'-N9	6.82	113.66	108.20
33	BA	936	C	C6-N1-C2	-6.82	117.57	120.30
1	CA	533	G	N1-C6-O6	6.82	123.99	119.90
1	EA	1332	G	N1-C6-O6	6.81	123.99	119.90
33	HA	602	A	N1-C6-N6	6.81	122.69	118.60
14	AN	71	ARG	NE-CZ-NH2	6.81	123.70	120.30
1	AA	656	G	O5'-P-OP2	-6.80	99.58	105.70
1	EA	1713	A	N1-C6-N6	6.80	122.68	118.60
33	FA	1305	G	C5-C6-O6	6.80	132.68	128.60
33	FA	472	U	C6-N1-C2	-6.80	116.92	121.00
33	FA	1032	G	C4-N9-C1'	6.77	135.31	126.50
1	EA	1263	U	C4-C5-C6	6.77	123.76	119.70
1	GA	2902	C	P-O3'-C3'	6.77	127.82	119.70
1	AA	1378	A	P-O3'-C3'	6.76	127.82	119.70
1	GA	2654	A	O5'-P-OP2	-6.76	99.61	105.70
1	AA	2681	C	C6-N1-C2	6.76	123.00	120.30
1	EA	967	U	N3-C2-O2	-6.76	117.47	122.20
1	CA	2250	G	C6-C5-N7	-6.76	126.34	130.40
17	AQ	29	ARG	NE-CZ-NH1	6.76	123.68	120.30
1	GA	1943	U	C5-C4-O4	6.75	129.95	125.90
1	EA	1452	G	N1-C6-O6	6.75	123.95	119.90
33	FA	983	A	N1-C6-N6	-6.75	114.55	118.60
33	BA	495	A	C5-C6-N6	6.75	129.10	123.70
1	EA	164	C	C6-N1-C2	-6.75	117.60	120.30
1	GA	1611	C	C6-N1-C2	6.75	123.00	120.30
1	AA	2305	U	O4'-C1'-N1	6.74	113.59	108.20
33	DA	95	C	N1-C2-O2	6.74	122.94	118.90
1	EA	973	A	O5'-P-OP1	-6.74	99.63	105.70
1	EA	1355	G	C6-C5-N7	-6.74	126.36	130.40
33	HA	250	A	P-O3'-C3'	6.74	127.79	119.70
33	FA	588	G	O5'-P-OP2	-6.74	99.64	105.70
33	BA	1362	A	C4-N9-C1'	-6.74	114.17	126.30
33	FA	913	A	P-O3'-C3'	6.73	127.78	119.70
1	EA	733	G	C5-C6-O6	-6.73	124.56	128.60
1	AA	1672	A	N1-C6-N6	6.72	122.63	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	HA	503	C	C6-N1-C2	-6.72	117.61	120.30
1	CA	2038	G	C6-C5-N7	-6.72	126.37	130.40
32	A5	123	ILE	CG1-CB-CG2	6.72	126.18	111.40
1	EA	2290	G	C6-C5-N7	-6.72	126.37	130.40
4	CD	151	THR	C-N-CD	6.71	142.50	128.40
14	CN	45	ARG	NE-CZ-NH1	6.71	123.66	120.30
1	CA	1762	A	N1-C6-N6	6.71	122.63	118.60
1	EA	2463	C	C5-C4-N4	-6.71	115.50	120.20
1	CA	1951	U	N1-C2-O2	-6.71	118.11	122.80
1	EA	1452	G	C2-N3-C4	-6.71	108.55	111.90
1	GA	2443	C	C6-N1-C2	-6.71	117.62	120.30
1	CA	783	A	N1-C6-N6	6.71	122.62	118.60
33	FA	1370	G	C5-C6-N1	-6.71	108.15	111.50
1	EA	2241	A	C8-N9-C4	-6.70	103.12	105.80
1	GA	775	G	O4'-C1'-N9	6.70	113.56	108.20
1	AA	1841	U	N1-C2-O2	-6.70	118.11	122.80
1	EA	2394	C	N1-C2-O2	-6.70	114.88	118.90
33	BA	1001	C	C6-N1-C2	-6.70	117.62	120.30
1	EA	1646	C	N3-C4-C5	6.70	124.58	121.90
1	EA	1772	A	O5'-P-OP2	-6.70	99.67	105.70
33	FA	1370	G	N3-C2-N2	-6.70	115.21	119.90
1	AA	570	G	C4-N9-C1'	6.69	135.20	126.50
1	EA	119	A	P-O3'-C3'	6.69	127.72	119.70
1	GA	1072	C	P-O3'-C3'	-6.69	111.68	119.70
1	EA	467	G	O5'-P-OP2	-6.68	99.69	105.70
1	AA	2551	C	OP2-P-O3'	6.67	119.89	105.20
33	FA	1032	G	N3-C4-C5	-6.67	125.26	128.60
1	AA	974	G	O4'-C1'-N9	6.67	113.53	108.20
1	EA	679	C	N3-C4-C5	6.67	124.57	121.90
1	AA	2065	C	C5-C4-N4	-6.66	115.54	120.20
33	FA	1101	A	N1-C6-N6	6.65	122.59	118.60
1	CA	512	G	O4'-C1'-N9	6.65	113.52	108.20
1	GA	1061	U	O4'-C1'-N1	6.65	113.52	108.20
1	EA	353	C	C6-N1-C2	-6.64	117.64	120.30
1	EA	834	G	C4-C5-C6	6.64	122.78	118.80
1	AA	512	G	O4'-C1'-N9	6.64	113.51	108.20
1	AA	2061	G	N3-C2-N2	-6.64	115.25	119.90
1	EA	1316	U	O5'-P-OP2	-6.64	99.72	105.70
1	EA	2423	U	P-O3'-C3'	6.64	127.67	119.70
33	FA	379	C	O5'-P-OP1	-6.64	99.73	105.70
1	CA	752	A	C6-C5-N7	-6.64	127.65	132.30
1	EA	2606	C	N1-C2-O2	-6.63	114.92	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1422	G	C5-C6-O6	-6.63	124.62	128.60
1	EA	1257	C	N3-C4-C5	-6.63	119.25	121.90
33	BA	913	A	P-O3'-C3'	6.62	127.64	119.70
1	CA	353	C	C6-N1-C2	-6.62	117.65	120.30
1	GA	834	G	N3-C2-N2	-6.62	115.27	119.90
33	HA	1496	C	C6-N1-C2	-6.62	117.65	120.30
1	AA	1202	G	C8-N9-C4	6.61	109.04	106.40
1	CA	984	A	N3-C4-N9	-6.61	122.11	127.40
1	EA	548	G	C8-N9-C4	-6.61	103.76	106.40
1	EA	688	U	O5'-P-OP2	-6.61	99.75	105.70
1	EA	443	A	N1-C6-N6	-6.60	114.64	118.60
33	BA	12	U	C5-C4-O4	6.59	129.86	125.90
1	EA	1263	U	N1-C2-N3	6.59	118.85	114.90
1	AA	570	G	N3-C4-C5	-6.58	125.31	128.60
1	EA	2253	G	C8-N9-C4	-6.58	103.77	106.40
1	EA	1083	U	N3-C2-O2	-6.58	117.60	122.20
1	AA	1269	A	C5-C6-N1	-6.57	114.41	117.70
33	HA	27	G	C8-N9-C4	-6.57	103.77	106.40
1	CA	1263	U	C6-N1-C2	-6.57	117.06	121.00
33	DA	1364	U	N1-C2-O2	6.56	127.39	122.80
33	FA	1030	U	O4'-C1'-N1	6.56	113.45	108.20
1	AA	911	A	N1-C6-N6	6.56	122.53	118.60
1	CA	2700	A	N9-C4-C5	-6.56	103.18	105.80
1	EA	1190	G	C4-C5-N7	6.56	113.42	110.80
32	E5	59	LEU	C-N-CA	6.56	138.09	121.70
33	HA	1299	A	C5-C6-N6	-6.55	118.46	123.70
1	GA	1382	G	O5'-P-OP1	6.55	118.56	110.70
1	AA	2888	C	C6-N1-C2	-6.55	117.68	120.30
32	A5	84	TYR	C-N-CA	6.55	138.08	121.70
1	CA	1963	U	N1-C2-O2	6.55	127.39	122.80
1	EA	1080	A	OP1-P-OP2	6.55	129.42	119.60
1	EA	1694	C	C6-N1-C2	-6.55	117.68	120.30
1	CA	465	G	N3-C4-C5	-6.54	125.33	128.60
33	FA	328	C	N3-C2-O2	-6.54	117.32	121.90
1	GA	2887	A	N1-C6-N6	6.54	122.52	118.60
1	GA	2452	C	C5-C4-N4	-6.54	115.62	120.20
32	A5	147	SER	C-N-CA	6.54	138.04	121.70
33	FA	339	C	C6-N1-C2	-6.53	117.69	120.30
1	AA	1656	C	C6-N1-C2	-6.53	117.69	120.30
13	EM	70	ASP	CB-CG-OD1	6.53	124.17	118.30
1	GA	678	C	C6-N1-C2	6.53	122.91	120.30
1	CA	974	G	C5-C6-O6	-6.52	124.69	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	967	U	N3-C4-C5	-6.52	110.69	114.60
1	EA	2517	C	O4'-C1'-N1	6.52	113.42	108.20
1	GA	752	A	N9-C4-C5	-6.52	103.19	105.80
1	GA	1264	A	O5'-P-OP1	-6.52	99.83	105.70
1	EA	801	G	C8-N9-C4	-6.52	103.79	106.40
1	EA	2146	C	P-O3'-C3'	6.52	127.52	119.70
1	GA	2281	A	C8-N9-C4	6.52	108.41	105.80
33	DA	557	G	N3-C4-N9	6.52	129.91	126.00
1	AA	116	C	O5'-P-OP2	-6.51	99.84	105.70
1	EA	493	G	N1-C6-O6	6.51	123.81	119.90
33	DA	177	G	N3-C4-C5	-6.51	125.34	128.60
1	CA	2893	A	N1-C6-N6	6.51	122.51	118.60
1	AA	2772	C	N1-C2-O2	-6.51	115.00	118.90
1	EA	520	G	C8-N9-C4	-6.51	103.80	106.40
1	GA	1925	C	O5'-P-OP2	-6.51	99.84	105.70
1	AA	2544	G	C4-C5-N7	6.51	113.40	110.80
32	A5	40	GLU	C-N-CA	6.50	137.96	121.70
1	CA	546	U	C2-N1-C1'	6.50	125.50	117.70
1	EA	972	A	C4-C5-N7	6.50	113.95	110.70
1	EA	2676	C	N3-C4-C5	6.50	124.50	121.90
33	FA	733	G	N1-C6-O6	6.50	123.80	119.90
1	AA	670	A	O4'-C1'-N9	-6.50	103.00	108.20
1	AA	1394	U	N3-C2-O2	-6.49	117.66	122.20
33	BA	914	A	O5'-P-OP1	-6.49	99.86	105.70
1	CA	744	U	O5'-P-OP2	-6.49	99.86	105.70
1	EA	253	C	N3-C4-C5	6.49	124.50	121.90
1	EA	731	C	C6-N1-C2	-6.49	117.70	120.30
1	EA	2446	G	C8-N9-C4	6.49	109.00	106.40
2	EB	66	A	C4-C5-N7	6.49	113.94	110.70
1	AA	570	G	C4-C5-C6	6.48	122.69	118.80
1	EA	935	C	N1-C2-O2	-6.48	115.01	118.90
1	AA	57	C	C6-N1-C2	-6.48	117.71	120.30
1	EA	1662	U	N1-C2-O2	-6.48	118.27	122.80
33	BA	328	C	C2-N1-C1'	6.47	125.92	118.80
1	AA	2047	C	N3-C2-O2	6.47	126.43	121.90
1	AA	2482	A	C2-N3-C4	-6.47	107.37	110.60
1	GA	533	G	O5'-P-OP1	-6.47	99.88	105.70
1	CA	1313	U	C2-N1-C1'	6.46	125.45	117.70
1	EA	1250	G	O4'-C1'-N9	-6.46	103.03	108.20
1	AA	2437	G	C8-N9-C4	-6.46	103.82	106.40
1	GA	752	A	C6-C5-N7	-6.46	127.78	132.30
1	EA	2719	G	C5-C6-N1	-6.45	108.27	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	FA	355	C	O5'-P-OP1	-6.45	99.90	105.70
1	CA	2032	G	N3-C4-C5	6.44	131.82	128.60
1	AA	2505	G	N1-C2-N2	-6.44	110.40	116.20
1	CA	2061	G	C5-C6-N1	-6.44	108.28	111.50
1	GA	974	G	C8-N9-C4	-6.44	103.82	106.40
1	EA	2506	U	N1-C2-O2	6.44	127.31	122.80
1	GA	1984	G	O5'-P-OP2	-6.44	99.91	105.70
1	AA	2732	G	N3-C4-C5	-6.43	125.38	128.60
1	CA	2202	U	C5-C4-O4	6.43	129.76	125.90
1	EA	575	A	O5'-P-OP1	-6.43	99.91	105.70
33	FA	89	U	O4'-C1'-N1	6.43	113.35	108.20
1	AA	2447	G	N9-C4-C5	-6.43	102.83	105.40
32	E5	28	ALA	C-N-CA	6.43	137.78	121.70
33	BA	1001	C	C5-C6-N1	6.43	124.21	121.00
1	EA	447	A	N1-C6-N6	6.43	122.46	118.60
1	EA	520	G	N9-C4-C5	6.43	107.97	105.40
1	AA	1252	G	C4-C5-N7	-6.42	108.23	110.80
1	CA	1030	C	C5-C6-N1	-6.42	117.79	121.00
1	EA	790	U	O5'-P-OP1	6.42	118.41	110.70
1	EA	987	C	N1-C2-O2	-6.42	115.05	118.90
1	GA	654	A	C2-N3-C4	6.42	113.81	110.60
1	GA	795	C	O5'-P-OP1	-6.42	99.92	105.70
1	EA	372	G	C5-C6-O6	-6.42	124.75	128.60
1	EA	2064	C	N1-C2-O2	6.42	122.75	118.90
1	GA	1311	G	C8-N9-C4	-6.42	103.83	106.40
1	EA	570	G	C5-C6-O6	-6.42	124.75	128.60
1	EA	733	G	N1-C6-O6	6.42	123.75	119.90
1	CA	1713	A	N1-C6-N6	6.42	122.45	118.60
33	HA	485	U	N3-C2-O2	-6.41	117.71	122.20
33	HA	1031	C	C6-N1-C2	-6.41	117.73	120.30
1	GA	2508	G	N9-C4-C5	6.41	107.97	105.40
1	CA	528	A	C2-N3-C4	-6.41	107.39	110.60
1	AA	2243	U	O5'-P-OP1	-6.41	99.94	105.70
1	EA	268	C	N3-C4-N4	6.41	122.48	118.00
1	EA	846	U	P-O3'-C3'	6.41	127.39	119.70
1	EA	1407	G	C5-C6-O6	-6.41	124.76	128.60
32	E5	53	ARG	C-N-CA	6.41	137.71	121.70
1	AA	776	G	C5-C6-N1	-6.40	108.30	111.50
1	CA	2553	G	N3-C4-N9	6.40	129.84	126.00
1	EA	404	A	P-O3'-C3'	6.40	127.38	119.70
1	GA	2455	G	N3-C4-C5	-6.40	125.40	128.60
1	EA	1730	C	C2-N1-C1'	-6.40	111.76	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	542	C	N3-C4-C5	-6.39	119.34	121.90
33	BA	890	G	O5'-P-OP1	6.39	118.37	110.70
23	EW	41	GLY	N-CA-C	-6.39	97.12	113.10
1	AA	2588	G	N9-C4-C5	6.39	107.95	105.40
33	FA	1526	G	C6-C5-N7	-6.39	126.57	130.40
33	DA	1228	C	N1-C2-O2	6.38	122.73	118.90
1	AA	2434	A	OP2-P-O3'	6.38	119.24	105.20
1	CA	2224	G	N1-C6-O6	6.38	123.73	119.90
33	DA	250	A	P-O3'-C3'	6.38	127.35	119.70
1	AA	2616	C	O5'-P-OP1	-6.38	99.96	105.70
1	CA	783	A	C2-N3-C4	-6.38	107.41	110.60
1	AA	548	G	C8-N9-C4	-6.37	103.85	106.40
1	EA	46	G	O5'-P-OP1	6.37	118.35	110.70
33	DA	1364	U	N3-C2-O2	-6.37	117.74	122.20
1	EA	2449	U	N3-C2-O2	-6.37	117.74	122.20
1	CA	2516	A	N1-C6-N6	-6.37	114.78	118.60
33	DA	1086	U	N3-C2-O2	-6.37	117.74	122.20
1	EA	1131	G	OP1-P-O3'	6.37	119.21	105.20
1	CA	1025	G	P-O3'-C3'	6.37	127.34	119.70
33	DA	435	A	C8-N9-C4	-6.36	103.25	105.80
1	EA	1936	A	C2-N3-C4	-6.36	107.42	110.60
32	E5	84	TYR	C-N-CA	6.36	137.60	121.70
1	CA	2354	C	C6-N1-C2	-6.36	117.76	120.30
1	EA	2061	G	N3-C4-N9	6.36	129.81	126.00
1	GA	2436	G	N9-C4-C5	6.35	107.94	105.40
33	HA	947	G	N1-C6-O6	6.35	123.71	119.90
33	FA	1526	G	N1-C6-O6	6.34	123.71	119.90
33	HA	1307	U	C5-C6-N1	6.34	125.87	122.70
1	CA	431	U	C6-N1-C2	-6.34	117.19	121.00
1	AA	1670	C	N1-C2-O2	-6.34	115.10	118.90
1	GA	1938	A	O4'-C1'-N9	6.33	113.27	108.20
1	AA	466	A	N1-C6-N6	6.33	122.40	118.60
1	EA	783	A	C6-C5-N7	-6.33	127.87	132.30
1	GA	2147	A	O4'-C1'-N9	-6.33	103.14	108.20
1	EA	776	G	C4-N9-C1'	6.33	134.73	126.50
1	GA	2006	C	C5-C6-N1	6.33	124.17	121.00
1	EA	1746	A	N1-C6-N6	6.33	122.40	118.60
1	EA	1025	G	P-O3'-C3'	6.33	127.29	119.70
1	EA	260	G	N1-C6-O6	-6.32	116.11	119.90
1	EA	545	U	C5-C6-N1	6.32	125.86	122.70
1	EA	2544	G	C5-C6-O6	-6.32	124.81	128.60
33	HA	1304	G	C8-N9-C4	-6.32	103.87	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	808	G	N3-C4-N9	6.32	129.79	126.00
32	E5	108	VAL	CG1-CB-CG2	6.31	121.00	110.90
1	GA	1352	U	O5'-P-OP2	-6.31	100.02	105.70
1	GA	2067	G	C5-C6-O6	6.31	132.39	128.60
1	CA	527	C	N1-C2-O2	6.30	122.68	118.90
1	EA	546	U	O4'-C1'-N1	6.30	113.24	108.20
33	FA	361	G	O5'-P-OP1	-6.30	100.03	105.70
1	CA	1190	G	C5-N7-C8	-6.30	101.15	104.30
1	EA	2076	U	OP2-P-O3'	6.30	119.06	105.20
1	GA	2307	G	C5-C6-O6	-6.30	124.82	128.60
1	CA	1378	A	P-O3'-C3'	6.30	127.26	119.70
1	GA	1473	G	N1-C6-O6	-6.29	116.12	119.90
1	GA	2717	C	N1-C2-O2	6.29	122.68	118.90
1	EA	946	C	N1-C2-O2	-6.29	115.13	118.90
1	AA	1094	U	C6-N1-C2	-6.29	117.23	121.00
1	CA	1685	C	C6-N1-C2	-6.29	117.78	120.30
1	EA	732	C	N3-C4-C5	-6.29	119.39	121.90
1	EA	2765	A	O5'-P-OP1	-6.28	100.05	105.70
17	EQ	29	ARG	NE-CZ-NH2	-6.28	117.16	120.30
1	AA	237	C	N3-C4-N4	6.27	122.39	118.00
1	AA	2440	C	N3-C2-O2	-6.27	117.51	121.90
33	FA	481	G	N9-C4-C5	-6.27	102.89	105.40
41	HI	57	MET	CG-SD-CE	6.27	110.23	100.20
1	AA	793	A	O5'-P-OP2	-6.27	100.06	105.70
1	GA	62	U	C2-N1-C1'	6.27	125.22	117.70
33	BA	485	U	O5'-P-OP1	-6.27	100.06	105.70
33	BA	779	C	C6-N1-C2	-6.27	117.79	120.30
33	FA	1279	G	O4'-C1'-N9	-6.27	103.19	108.20
1	AA	1956	U	N3-C2-O2	-6.27	117.81	122.20
1	EA	2250	G	C8-N9-C4	-6.27	103.89	106.40
1	EA	1935	G	C8-N9-C4	-6.26	103.89	106.40
1	EA	2518	A	O4'-C1'-N9	-6.26	103.19	108.20
1	GA	1476	U	C5-C4-O4	-6.26	122.14	125.90
1	AA	1029	A	O5'-P-OP1	-6.26	100.07	105.70
33	DA	207	C	N3-C2-O2	-6.26	117.52	121.90
1	GA	1931	U	O5'-P-OP1	-6.25	100.07	105.70
1	AA	2050	C	O5'-P-OP2	-6.25	100.08	105.70
1	CA	1349	C	O5'-P-OP1	6.25	118.20	110.70
1	EA	2241	A	N9-C4-C5	6.25	108.30	105.80
1	GA	663	G	N1-C6-O6	6.24	123.65	119.90
1	GA	752	A	C5-N7-C8	-6.24	100.78	103.90
1	GA	2508	G	C4-C5-N7	-6.24	108.30	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	783	A	C4-C5-N7	6.24	113.82	110.70
12	AL	19	LEU	CA-CB-CG	6.24	129.64	115.30
1	EA	493	G	C5-C6-O6	-6.23	124.86	128.60
1	CA	34	U	O4'-C1'-N1	-6.23	103.22	108.20
1	CA	404	A	P-O3'-C3'	6.23	127.17	119.70
1	GA	1779	U	C5-C6-N1	-6.23	119.59	122.70
1	CA	1422	G	N1-C6-O6	6.23	123.64	119.90
33	DA	62	U	C5-C4-O4	6.22	129.63	125.90
1	EA	2442	C	N1-C2-O2	-6.22	115.17	118.90
1	EA	971	G	C5-C6-N1	-6.22	108.39	111.50
1	CA	1989	G	C8-N9-C4	-6.22	103.91	106.40
33	BA	135	C	C6-N1-C2	6.22	122.79	120.30
1	EA	213	A	N1-C6-N6	6.22	122.33	118.60
1	AA	2204	G	C5-C6-O6	-6.21	124.87	128.60
1	EA	733	G	C6-C5-N7	-6.21	126.67	130.40
1	CA	2645	G	O5'-P-OP2	-6.21	100.11	105.70
33	FA	53	A	C8-N9-C4	-6.21	103.32	105.80
1	EA	670	A	O4'-C1'-N9	-6.20	103.24	108.20
1	CA	271	G	P-O3'-C3'	6.20	127.14	119.70
1	AA	1189	A	C5-C6-N1	-6.20	114.60	117.70
1	EA	978	G	N3-C4-N9	6.20	129.72	126.00
1	GA	1072	C	N1-C2-O2	6.20	122.62	118.90
1	CA	1083	U	N3-C2-O2	-6.20	117.86	122.20
1	EA	578	G	N1-C6-O6	6.20	123.62	119.90
33	BA	1322	C	N1-C2-O2	6.20	122.62	118.90
1	GA	263	G	O5'-P-OP2	-6.20	100.12	105.70
1	AA	1364	G	N3-C4-C5	6.19	131.70	128.60
1	EA	1287	A	C8-N9-C4	-6.19	103.32	105.80
1	AA	1252	G	N9-C4-C5	6.19	107.88	105.40
33	FA	461	A	C2-N3-C4	6.18	113.69	110.60
32	E5	40	GLU	C-N-CA	6.18	137.15	121.70
1	CA	1943	U	N3-C4-O4	-6.18	115.07	119.40
1	AA	855	G	C8-N9-C4	-6.18	103.93	106.40
1	AA	2253	G	C5-C6-O6	-6.18	124.89	128.60
1	CA	2336	A	N1-C6-N6	-6.17	114.89	118.60
32	E5	39	THR	C-N-CA	6.17	137.13	121.70
1	AA	774	G	N3-C4-C5	-6.17	125.51	128.60
1	CA	995	C	O4'-C1'-N1	-6.17	103.26	108.20
1	CA	2336	A	C5-C6-N6	6.17	128.64	123.70
33	BA	739	C	O5'-P-OP1	-6.17	100.15	105.70
1	GA	808	G	N9-C4-C5	-6.17	102.93	105.40
1	AA	1385	A	O4'-C1'-N9	6.17	113.14	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1556	C	O5'-P-OP2	-6.17	100.15	105.70
1	EA	569	U	N1-C2-O2	-6.17	118.48	122.80
1	GA	2448	A	N1-C6-N6	6.17	122.30	118.60
1	GA	783	A	C4-C5-N7	6.17	113.78	110.70
33	FA	880	C	O5'-P-OP2	-6.16	100.15	105.70
1	AA	1066	U	N1-C2-O2	6.16	127.11	122.80
33	HA	1012	A	C8-N9-C4	-6.16	103.34	105.80
1	AA	784	G	O5'-P-OP1	-6.16	100.16	105.70
1	EA	782	A	O5'-P-OP2	-6.16	100.16	105.70
1	EA	2498	C	C2-N3-C4	-6.16	116.82	119.90
1	AA	2250	G	C2-N3-C4	-6.15	108.82	111.90
1	EA	431	U	N3-C4-O4	6.15	123.71	119.40
1	EA	677	A	OP1-P-O3'	6.15	118.73	105.20
1	AA	1534	U	N3-C2-O2	-6.15	117.89	122.20
1	CA	2054	A	C8-N9-C4	-6.15	103.34	105.80
1	GA	2577	A	O5'-P-OP2	-6.15	100.16	105.70
1	EA	542	C	C6-N1-C2	-6.15	117.84	120.30
33	DA	244	U	N3-C2-O2	-6.14	117.90	122.20
1	CA	1027	A	C6-C5-N7	-6.14	128.00	132.30
1	CA	1617	C	O5'-P-OP2	-6.14	100.17	105.70
1	AA	1088	A	P-O3'-C3'	6.14	127.07	119.70
1	EA	549	G	N3-C4-N9	6.14	129.69	126.00
1	EA	841	G	N1-C6-O6	6.14	123.58	119.90
1	AA	1648	U	N3-C2-O2	6.14	126.50	122.20
1	GA	2495	G	N1-C6-O6	6.14	123.58	119.90
1	AA	2440	C	N1-C2-O2	6.13	122.58	118.90
1	AA	2902	C	P-O3'-C3'	6.13	127.06	119.70
33	FA	1032	G	C8-N9-C1'	-6.13	119.02	127.00
1	EA	470	A	O5'-P-OP2	6.13	118.06	110.70
1	GA	1478	G	N3-C2-N2	-6.13	115.61	119.90
1	AA	1174	U	O4'-C1'-N1	6.13	113.10	108.20
1	CA	869	G	N1-C6-O6	6.13	123.58	119.90
1	GA	512	G	O4'-C1'-N9	6.13	113.10	108.20
1	AA	1779	U	C5-C4-O4	6.13	129.58	125.90
1	EA	1902	C	C6-N1-C2	6.13	122.75	120.30
1	GA	829	A	C2-N3-C4	-6.13	107.54	110.60
1	CA	654	A	N3-C4-C5	-6.12	122.51	126.80
2	CB	99	A	O5'-P-OP1	-6.12	100.19	105.70
1	AA	2867	G	O5'-P-OP2	6.12	118.05	110.70
1	CA	2423	U	P-O3'-C3'	6.12	127.05	119.70
1	CA	1606	C	C2-N1-C1'	6.12	125.53	118.80
1	CA	1422	G	C6-C5-N7	-6.11	126.73	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1762	A	N9-C4-C5	-6.10	103.36	105.80
1	AA	528	A	C5-N7-C8	-6.10	100.85	103.90
1	CA	1087	G	P-O3'-C3'	6.10	127.02	119.70
1	GA	2447	G	N1-C6-O6	6.10	123.56	119.90
1	EA	1930	G	C4-N9-C1'	-6.09	118.58	126.50
1	GA	2534	A	N1-C6-N6	6.09	122.26	118.60
1	CA	2719	G	C5-C6-N1	-6.09	108.45	111.50
1	CA	533	G	N3-C2-N2	-6.09	115.64	119.90
1	GA	1943	U	N3-C4-O4	-6.09	115.14	119.40
1	GA	2599	G	C4-C5-N7	-6.09	108.36	110.80
33	HA	1334	G	N3-C4-N9	6.09	129.65	126.00
1	EA	786	C	OP2-P-O3'	6.09	118.59	105.20
16	AP	52	ARG	NE-CZ-NH2	-6.09	117.26	120.30
33	BA	1099	G	C5-C6-O6	6.09	132.25	128.60
1	EA	248	G	C5-C6-O6	-6.09	124.95	128.60
1	EA	501	A	O5'-P-OP2	-6.09	100.22	105.70
1	EA	2228	G	N1-C6-O6	6.09	123.55	119.90
1	GA	2571	U	C5-C4-O4	-6.09	122.25	125.90
1	AA	1073	A	C4-N9-C1'	-6.08	115.35	126.30
1	EA	2503	A	C5-C6-N6	-6.08	118.83	123.70
1	CA	470	A	OP1-P-OP2	-6.08	110.47	119.60
1	CA	1365	A	OP2-P-O3'	6.08	118.58	105.20
1	EA	1789	A	OP1-P-OP2	-6.08	110.48	119.60
33	FA	733	G	N3-C4-C5	6.08	131.64	128.60
1	GA	1087	G	C8-N9-C4	-6.08	103.97	106.40
1	AA	528	A	C2-N3-C4	-6.08	107.56	110.60
1	EA	2506	U	N3-C2-O2	-6.08	117.94	122.20
1	AA	2139	U	C5-C4-O4	-6.08	122.25	125.90
1	EA	694	U	O5'-P-OP2	-6.08	100.23	105.70
1	GA	119	A	P-O3'-C3'	6.08	126.99	119.70
1	GA	2073	C	C6-N1-C2	-6.08	117.87	120.30
1	CA	1088	A	O5'-P-OP1	6.08	117.99	110.70
1	EA	264	C	O5'-P-OP2	-6.08	100.23	105.70
1	AA	1142	A	N3-C4-C5	6.07	131.05	126.80
1	EA	1779	U	C2-N1-C1'	-6.07	110.41	117.70
1	EA	2391	G	O4'-C1'-N9	6.07	113.06	108.20
33	HA	206	C	C6-N1-C2	-6.07	117.87	120.30
1	AA	2614	A	N1-C6-N6	6.07	122.24	118.60
1	EA	776	G	C5-C6-N1	-6.07	108.46	111.50
1	AA	2505	G	N3-C4-N9	6.07	129.64	126.00
1	AA	974	G	C4-N9-C1'	6.07	134.38	126.50
1	CA	2551	C	OP2-P-O3'	6.07	118.54	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	2509	G	C2-N3-C4	-6.07	108.87	111.90
1	AA	1305	C	C6-N1-C2	-6.06	117.88	120.30
32	A5	60	LEU	CB-CG-CD2	6.06	121.31	111.00
1	CA	2686	G	OP2-P-O3'	6.06	118.52	105.20
33	BA	496	A	O4'-C1'-N9	6.05	113.04	108.20
1	EA	264	C	O5'-P-OP1	6.05	117.97	110.70
1	EA	2503	A	N1-C6-N6	6.05	122.23	118.60
1	AA	2645	G	O4'-C1'-N9	6.05	113.04	108.20
1	EA	685	A	C8-N9-C4	-6.05	103.38	105.80
1	EA	2076	U	N1-C2-O2	6.05	127.04	122.80
1	EA	374	A	N1-C6-N6	6.05	122.23	118.60
1	GA	2022	U	N1-C2-N3	-6.05	111.27	114.90
1	GA	2360	G	C6-C5-N7	-6.05	126.77	130.40
1	CA	793	A	N9-C4-C5	-6.05	103.38	105.80
1	EA	987	C	C6-N1-C2	-6.05	117.88	120.30
1	AA	2020	A	N1-C6-N6	6.05	122.23	118.60
1	AA	2253	G	C6-C5-N7	-6.05	126.77	130.40
1	AA	2505	G	N3-C4-C5	-6.05	125.58	128.60
1	CA	933	A	C8-N9-C4	-6.05	103.38	105.80
1	GA	1606	C	P-O3'-C3'	6.05	126.96	119.70
32	A5	54	VAL	CG1-CB-CG2	6.04	120.57	110.90
1	GA	271	G	OP1-P-O3'	6.04	118.50	105.20
1	AA	2748	A	OP1-P-OP2	-6.04	110.54	119.60
1	EA	587	C	O5'-P-OP1	-6.04	100.26	105.70
1	EA	2595	G	N1-C6-O6	-6.04	116.28	119.90
1	EA	2788	C	N3-C2-O2	-6.04	117.67	121.90
1	AA	2505	G	N3-C2-N2	6.04	124.13	119.90
33	BA	728	A	N1-C6-N6	-6.04	114.98	118.60
33	FA	903	G	C6-C5-N7	-6.04	126.78	130.40
33	BA	686	U	O4'-C1'-N1	6.04	113.03	108.20
41	DI	68	LYS	CD-CE-NZ	6.04	125.58	111.70
1	AA	677	A	OP1-P-O3'	6.03	118.47	105.20
1	CA	583	G	N1-C6-O6	6.03	123.52	119.90
1	EA	1003	G	C8-N9-C4	-6.03	103.99	106.40
1	GA	1831	G	C8-N9-C4	-6.03	103.99	106.40
33	HA	578	C	N1-C2-O2	-6.03	115.28	118.90
1	CA	1049	C	C6-N1-C2	6.03	122.71	120.30
1	EA	2579	C	N1-C2-O2	6.03	122.52	118.90
1	GA	772	C	N1-C2-O2	-6.03	115.28	118.90
1	AA	1394	U	N1-C2-O2	6.03	127.02	122.80
1	CA	336	C	C6-N1-C2	-6.03	117.89	120.30
1	EA	2377	A	O5'-P-OP1	-6.03	100.28	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	2428	G	O5'-P-OP2	-6.03	100.28	105.70
1	EA	995	C	O4'-C1'-N1	-6.03	103.38	108.20
33	FA	1032	G	N3-C4-N9	6.02	129.62	126.00
1	AA	1724	G	C4-N9-C1'	6.02	134.33	126.50
1	CA	2146	C	N1-C2-O2	6.02	122.51	118.90
25	GY	62	GLY	N-CA-C	6.02	128.15	113.10
1	EA	2584	U	N3-C2-O2	6.02	126.41	122.20
1	EA	473	G	O5'-P-OP2	-6.01	100.29	105.70
1	AA	1737	G	C8-N9-C4	-6.01	104.00	106.40
1	EA	984	A	C6-N1-C2	6.01	122.21	118.60
33	FA	1201	A	P-O3'-C3'	6.01	126.92	119.70
33	HA	5	U	C5-C4-O4	-6.01	122.29	125.90
1	EA	248	G	C8-N9-C4	6.01	108.80	106.40
1	CA	1951	U	N3-C2-O2	6.01	126.41	122.20
1	EA	195	A	O5'-P-OP2	-6.00	100.30	105.70
1	EA	1025	G	C8-N9-C4	-6.00	104.00	106.40
33	FA	1279	G	N1-C6-O6	6.00	123.50	119.90
1	CA	1475	G	P-O3'-C3'	6.00	126.91	119.70
33	FA	857	C	C6-N1-C2	-6.00	117.90	120.30
1	EA	941	A	O5'-P-OP1	-6.00	100.30	105.70
33	DA	1054	C	N1-C2-O2	-6.00	115.30	118.90
1	AA	2544	G	C8-N9-C1'	-6.00	119.20	127.00
1	EA	469	G	O5'-P-OP1	-6.00	100.31	105.70
1	GA	1478	G	N1-C6-O6	5.99	123.50	119.90
32	A5	59	LEU	C-N-CA	5.99	136.68	121.70
33	HA	485	U	N1-C2-O2	5.99	126.99	122.80
1	CA	785	G	O5'-P-OP1	-5.99	100.31	105.70
1	CA	1157	G	N1-C6-O6	5.99	123.50	119.90
1	EA	2581	G	N3-C4-N9	5.99	129.59	126.00
1	GA	1062	G	N3-C4-C5	-5.99	125.61	128.60
1	GA	2508	G	N3-C4-N9	-5.99	122.41	126.00
1	GA	2465	C	OP2-P-O3'	5.99	118.38	105.20
1	EA	839	U	C5-C4-O4	5.99	129.49	125.90
1	GA	2254	C	O5'-P-OP1	-5.99	100.31	105.70
1	GA	2107	G	P-O3'-C3'	5.99	126.88	119.70
43	HK	122	ARG	NE-CZ-NH2	-5.99	117.31	120.30
33	BA	1515	G	N1-C6-O6	5.98	123.49	119.90
1	CA	2544	G	C4-C5-C6	5.98	122.39	118.80
1	EA	1730	C	C5-C6-N1	-5.98	118.01	121.00
1	AA	205	G	O4'-C1'-N9	5.98	112.98	108.20
1	AA	991	C	C6-N1-C2	-5.98	117.91	120.30
1	CA	2517	C	O4'-C1'-N1	5.98	112.98	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	1356	G	O5'-P-OP2	5.98	117.87	110.70
1	GA	1383	A	O4'-C1'-N9	5.98	112.98	108.20
33	HA	328	C	N1-C2-O2	5.98	122.49	118.90
33	DA	328	C	C2-N1-C1'	5.98	125.37	118.80
1	AA	2076	U	N3-C2-O2	-5.97	118.02	122.20
32	A5	39	THR	C-N-CA	5.97	136.63	121.70
1	EA	527	C	C2-N1-C1'	5.97	125.37	118.80
1	GA	1620	G	N1-C6-O6	5.97	123.48	119.90
3	GC	233	GLY	N-CA-C	-5.97	98.17	113.10
1	EA	361	G	N1-C6-O6	5.97	123.48	119.90
1	EA	752	A	O4'-C1'-N9	5.97	112.98	108.20
1	EA	776	G	C4-C5-N7	-5.97	108.41	110.80
1	AA	2053	G	O5'-P-OP2	5.97	117.87	110.70
1	EA	2017	U	C6-N1-C2	-5.97	117.42	121.00
1	GA	776	G	C5-C6-N1	-5.97	108.52	111.50
1	GA	2060	A	OP1-P-O3'	5.97	118.33	105.20
33	HA	1087	G	C4-C5-C6	5.97	122.38	118.80
1	CA	2030	A	N9-C4-C5	5.97	108.19	105.80
1	AA	2423	U	P-O3'-C3'	5.97	126.86	119.70
1	AA	2719	G	C5-C6-N1	-5.97	108.52	111.50
1	CA	1452	G	C6-C5-N7	-5.97	126.82	130.40
1	EA	669	G	N9-C4-C5	5.97	107.79	105.40
1	EA	802	A	O5'-P-OP2	-5.96	100.33	105.70
1	EA	2524	G	OP2-P-O3'	5.96	118.32	105.20
1	AA	531	C	N3-C2-O2	-5.96	117.73	121.90
1	AA	119	A	P-O3'-C3'	5.96	126.85	119.70
1	EA	1665	A	O5'-P-OP1	-5.96	100.34	105.70
33	FA	995	C	C6-N1-C2	5.96	122.68	120.30
1	CA	2455	G	N3-C4-C5	-5.96	125.62	128.60
33	DA	401	C	C6-N1-C2	-5.96	117.92	120.30
1	EA	818	G	C8-N9-C4	-5.96	104.02	106.40
1	EA	2332	C	N3-C4-C5	5.96	124.28	121.90
1	GA	1824	G	C5-C6-O6	5.96	132.17	128.60
54	HV	93	VAL	N-CA-C	-5.96	94.92	111.00
2	AB	63	C	C6-N1-C2	5.95	122.68	120.30
1	GA	272	A	O4'-C1'-N9	5.95	112.96	108.20
1	GA	812	C	N1-C2-O2	-5.95	115.33	118.90
1	AA	2146	C	C2-N1-C1'	5.95	125.34	118.80
33	FA	1530	G	C4-N9-C1'	-5.95	118.77	126.50
1	AA	797	G	OP1-P-O3'	5.95	118.28	105.20
3	AC	12	ARG	NE-CZ-NH1	5.94	123.27	120.30
1	CA	2020	A	C8-N9-C4	-5.94	103.42	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	2516	A	C5-C6-N6	5.94	128.45	123.70
2	EB	36	C	C6-N1-C2	5.93	122.67	120.30
1	AA	1073	A	C8-N9-C4	5.93	108.17	105.80
2	EB	66	A	C5-C6-N1	-5.93	114.74	117.70
1	GA	2323	G	N1-C6-O6	5.93	123.46	119.90
1	CA	834	G	N3-C2-N2	-5.92	115.75	119.90
1	CA	132	G	N1-C6-O6	5.92	123.45	119.90
1	AA	2864	G	N1-C6-O6	-5.92	116.35	119.90
1	EA	1027	A	C4-C5-C6	5.92	119.96	117.00
33	DA	913	A	P-O3'-C3'	5.92	126.80	119.70
1	EA	1931	U	N3-C4-O4	5.92	123.54	119.40
33	FA	1279	G	C8-N9-C4	-5.92	104.03	106.40
1	GA	1509	A	P-O3'-C3'	5.92	126.80	119.70
1	EA	271	G	P-O3'-C3'	5.92	126.80	119.70
33	HA	639	G	C8-N9-C4	-5.92	104.03	106.40
1	EA	2575	C	N3-C4-C5	5.92	124.27	121.90
1	EA	586	A	O5'-P-OP1	-5.91	100.38	105.70
1	AA	559	G	N1-C6-O6	5.91	123.44	119.90
1	AA	1088	A	O4'-C1'-N9	-5.91	103.47	108.20
1	CA	793	A	C8-N9-C4	5.91	108.16	105.80
1	EA	1378	A	P-O3'-C3'	5.91	126.79	119.70
33	BA	768	A	O5'-P-OP1	-5.91	100.39	105.70
1	GA	2038	G	N1-C6-O6	5.90	123.44	119.90
33	HA	1086	U	C6-N1-C2	-5.90	117.46	121.00
1	GA	2455	G	N3-C4-N9	5.90	129.54	126.00
1	CA	1673	G	C8-N9-C4	5.90	108.76	106.40
1	EA	1999	C	OP2-P-O3'	5.90	118.18	105.20
10	EJ	140	LEU	CA-CB-CG	5.90	128.87	115.30
1	CA	117	G	O5'-P-OP1	5.90	117.78	110.70
1	CA	1190	G	C4-C5-N7	5.90	113.16	110.80
1	EA	375	G	C6-C5-N7	-5.90	126.86	130.40
1	EA	1030	C	N1-C2-O2	-5.90	115.36	118.90
1	EA	141	G	N3-C4-C5	-5.89	125.65	128.60
1	CA	583	G	C4-C5-N7	5.89	113.16	110.80
1	AA	1475	G	P-O3'-C3'	5.89	126.77	119.70
1	GA	2772	C	C6-N1-C2	-5.89	117.94	120.30
1	GA	404	A	P-O3'-C3'	5.89	126.76	119.70
1	CA	1263	U	N3-C4-C5	-5.88	111.07	114.60
1	CA	1857	G	P-O3'-C3'	5.88	126.76	119.70
1	EA	88	G	C5-C6-O6	5.88	132.13	128.60
1	EA	198	C	C2-N3-C4	-5.88	116.96	119.90
1	EA	1447	C	C6-N1-C2	-5.88	117.95	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	1452	G	C5-N7-C8	-5.88	101.36	104.30
1	CA	442	G	C8-N9-C4	-5.88	104.05	106.40
1	EA	790	U	C2-N1-C1'	5.88	124.76	117.70
1	EA	2723	C	N3-C4-N4	-5.88	113.88	118.00
1	AA	336	C	C6-N1-C2	-5.88	117.95	120.30
1	AA	1823	G	O5'-P-OP1	-5.88	100.41	105.70
1	CA	2146	C	N3-C2-O2	-5.88	117.79	121.90
1	AA	2544	G	N7-C8-N9	5.88	116.04	113.10
1	EA	1520	U	C6-N1-C2	-5.88	117.47	121.00
33	BA	882	C	N1-C2-O2	-5.88	115.38	118.90
1	EA	2042	A	O5'-P-OP2	-5.88	100.41	105.70
33	DA	1405	G	O5'-P-OP1	-5.87	100.41	105.70
33	FA	945	G	N1-C6-O6	5.87	123.42	119.90
1	GA	2204	G	N1-C6-O6	5.87	123.42	119.90
1	EA	62	U	C6-N1-C1'	-5.87	112.98	121.20
1	EA	308	G	C5-C6-O6	-5.87	125.08	128.60
1	GA	2447	G	C8-N9-C4	5.87	108.75	106.40
1	AA	404	A	P-O3'-C3'	5.87	126.74	119.70
1	EA	2308	G	O4'-C1'-N9	-5.87	103.50	108.20
1	GA	2006	C	C6-N1-C2	-5.87	117.95	120.30
1	CA	396	G	N1-C6-O6	-5.87	116.38	119.90
33	DA	563	A	O4'-C1'-N9	5.87	112.89	108.20
1	GA	466	A	N1-C6-N6	-5.87	115.08	118.60
1	GA	789	A	C8-N9-C4	5.87	108.15	105.80
1	CA	2621	G	O5'-P-OP1	-5.87	100.42	105.70
1	CA	528	A	N1-C2-N3	5.87	132.23	129.30
33	DA	1178	G	C4-N9-C1'	5.87	134.12	126.50
1	GA	1703	G	C8-N9-C4	-5.87	104.05	106.40
33	FA	975	A	O5'-P-OP2	-5.86	100.42	105.70
1	CA	1025	G	OP2-P-O3'	5.86	118.10	105.20
1	EA	807	U	C6-N1-C2	-5.86	117.48	121.00
1	AA	680	C	C6-N1-C2	-5.86	117.95	120.30
1	EA	1218	G	C8-N9-C4	-5.86	104.06	106.40
1	GA	503	A	C8-N9-C4	-5.86	103.45	105.80
1	GA	1307	A	O5'-P-OP2	5.86	117.73	110.70
1	GA	1779	U	O5'-P-OP1	-5.86	100.43	105.70
1	AA	2610	C	N3-C2-O2	-5.86	117.80	121.90
1	CA	251	A	C2-N3-C4	5.86	113.53	110.60
1	CA	1779	U	O5'-P-OP1	-5.86	100.43	105.70
1	EA	1180	U	C2-N1-C1'	5.86	124.73	117.70
33	FA	1279	G	C5-N7-C8	-5.86	101.37	104.30
1	GA	1675	C	O5'-P-OP2	-5.86	100.43	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1936	A	N1-C2-N3	5.85	132.23	129.30
1	GA	2103	C	C5-C6-N1	5.85	123.93	121.00
1	AA	298	G	N1-C6-O6	5.85	123.41	119.90
1	AA	2142	A	OP2-P-O3'	5.85	118.07	105.20
1	CA	2017	U	N3-C4-O4	5.85	123.50	119.40
1	CA	729	G	C5-C6-O6	-5.85	125.09	128.60
1	CA	789	A	C8-N9-C4	-5.85	103.46	105.80
1	EA	1827	U	C6-N1-C2	-5.85	117.49	121.00
2	AB	37	C	C6-N1-C2	5.84	122.64	120.30
1	AA	352	A	N1-C6-N6	5.84	122.11	118.60
1	CA	1802	A	N1-C6-N6	-5.84	115.09	118.60
1	EA	2607	G	N3-C4-C5	-5.84	125.68	128.60
1	GA	882	G	P-O3'-C3'	5.84	126.71	119.70
33	HA	1279	G	N7-C8-N9	5.84	116.02	113.10
33	BA	1366	C	N1-C2-O2	-5.84	115.39	118.90
1	CA	1102	C	C6-N1-C2	5.84	122.64	120.30
53	DU	34	ARG	NE-CZ-NH2	5.84	123.22	120.30
1	EA	972	A	O5'-P-OP1	5.84	117.71	110.70
1	EA	2055	C	C6-N1-C2	5.84	122.64	120.30
33	FA	1530	G	O4'-C1'-N9	5.84	112.87	108.20
1	GA	855	G	C8-N9-C4	-5.84	104.06	106.40
33	BA	1480	A	N1-C6-N6	5.84	122.10	118.60
33	FA	1203	C	O5'-P-OP2	-5.84	100.45	105.70
1	EA	987	C	N3-C4-N4	5.83	122.08	118.00
33	FA	1114	C	C6-N1-C2	-5.83	117.97	120.30
33	HA	798	U	N3-C2-O2	5.83	126.28	122.20
1	AA	570	G	C8-N9-C4	-5.83	104.07	106.40
1	EA	1061	U	N1-C2-O2	5.83	126.88	122.80
1	EA	1188	U	OP2-P-O3'	5.83	118.03	105.20
1	EA	2885	G	N3-C4-C5	-5.83	125.68	128.60
1	GA	2042	A	N1-C6-N6	5.83	122.10	118.60
1	GA	2825	G	C8-N9-C4	-5.83	104.07	106.40
33	HA	1086	U	N1-C2-O2	5.83	126.88	122.80
1	GA	200	U	C5-C4-O4	5.83	129.40	125.90
1	EA	2508	G	N3-C2-N2	-5.83	115.82	119.90
1	AA	571	U	O4'-C1'-N1	5.83	112.86	108.20
33	BA	485	U	N1-C2-O2	5.83	126.88	122.80
1	EA	1348	C	C6-N1-C2	5.83	122.63	120.30
33	HA	1116	U	O5'-P-OP2	-5.83	100.46	105.70
32	A5	108	VAL	CG1-CB-CG2	5.82	120.22	110.90
1	EA	540	C	N1-C2-O2	-5.82	115.41	118.90
1	AA	2824	C	O5'-P-OP2	-5.82	100.46	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1963	U	C2-N1-C1'	5.82	124.69	117.70
33	HA	115	G	C8-N9-C4	-5.82	104.07	106.40
1	EA	207	A	N3-C4-C5	5.82	130.87	126.80
1	EA	644	A	N1-C6-N6	5.82	122.09	118.60
1	EA	774	G	C5-C6-O6	-5.82	125.11	128.60
1	EA	941	A	C4-C5-C6	-5.81	114.09	117.00
3	EC	109	LEU	CA-CB-CG	5.81	128.67	115.30
1	GA	2027	G	N3-C4-N9	5.81	129.49	126.00
1	CA	372	G	C5-C6-O6	-5.81	125.11	128.60
1	EA	2444	G	N1-C2-N3	5.81	127.39	123.90
1	CA	479	A	P-O3'-C3'	5.81	126.67	119.70
33	DA	251	G	N1-C6-O6	5.81	123.38	119.90
1	EA	1779	U	O4'-C1'-N1	5.81	112.85	108.20
1	CA	1190	G	N3-C2-N2	-5.80	115.84	119.90
1	CA	2608	G	O5'-P-OP2	-5.80	100.48	105.70
1	CA	2747	G	N1-C6-O6	5.80	123.38	119.90
33	DA	244	U	N1-C2-O2	5.80	126.86	122.80
1	CA	2250	G	N3-C4-N9	-5.80	122.52	126.00
1	EA	736	C	N3-C2-O2	5.80	125.96	121.90
1	EA	2498	C	N3-C4-C5	5.80	124.22	121.90
1	EA	794	A	N9-C4-C5	-5.79	103.48	105.80
1	EA	561	G	N1-C6-O6	-5.79	116.42	119.90
1	EA	1336	A	C8-N9-C4	-5.79	103.48	105.80
1	CA	1983	G	O5'-P-OP1	5.79	117.64	110.70
1	CA	2076	U	N3-C2-O2	-5.79	118.15	122.20
1	EA	733	G	C4-C5-N7	5.79	113.11	110.80
1	CA	528	A	C8-N9-C4	-5.78	103.49	105.80
1	CA	776	G	C5-C6-O6	5.78	132.07	128.60
1	CA	2594	C	O5'-P-OP1	-5.78	100.49	105.70
1	AA	1025	G	P-O3'-C3'	5.78	126.64	119.70
1	AA	1648	U	N1-C2-O2	-5.78	118.75	122.80
1	EA	1310	G	C5-C6-O6	5.78	132.07	128.60
1	CA	2433	A	O5'-P-OP2	-5.78	100.50	105.70
1	EA	2279	G	C5-C6-O6	-5.78	125.13	128.60
1	CA	2061	G	N3-C2-N2	-5.78	115.86	119.90
1	EA	631	A	O5'-P-OP1	-5.78	100.50	105.70
1	GA	375	G	C5-C6-N1	-5.78	108.61	111.50
1	GA	546	U	N1-C2-O2	5.78	126.84	122.80
1	AA	2262	U	C6-N1-C2	-5.77	117.54	121.00
1	CA	2032	G	C4-C5-N7	5.77	113.11	110.80
1	EA	271	G	OP1-P-O3'	5.77	117.90	105.20
1	CA	1256	G	N9-C4-C5	5.77	107.71	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	991	C	C6-N1-C2	-5.77	117.99	120.30
1	EA	477	A	O5'-P-OP2	-5.77	100.51	105.70
1	AA	1958	C	N1-C2-O2	5.77	122.36	118.90
1	EA	801	G	N9-C4-C5	5.77	107.71	105.40
33	FA	450	G	N3-C4-C5	-5.77	125.72	128.60
1	GA	142	A	P-O3'-C3'	5.77	126.62	119.70
1	AA	2719	G	C4-N9-C1'	5.77	134.00	126.50
1	EA	1083	U	C6-N1-C2	-5.76	117.54	121.00
1	AA	469	G	C6-C5-N7	-5.76	126.94	130.40
1	CA	2061	G	C6-C5-N7	-5.76	126.94	130.40
1	EA	1780	A	OP1-P-O3'	5.76	117.87	105.20
1	AA	2067	G	C8-N9-C4	-5.76	104.10	106.40
1	EA	140	C	C6-N1-C2	-5.75	118.00	120.30
1	AA	2591	C	N1-C2-O2	-5.75	115.45	118.90
1	AA	991	C	N3-C4-C5	-5.75	119.60	121.90
1	CA	784	G	P-O3'-C3'	5.75	126.60	119.70
1	EA	1245	G	C8-N9-C4	5.75	108.70	106.40
1	GA	1996	C	O5'-P-OP2	-5.75	100.53	105.70
33	DA	557	G	N3-C4-C5	-5.75	125.73	128.60
1	GA	546	U	C2-N1-C1'	5.75	124.59	117.70
1	AA	2391	G	O4'-C1'-N9	5.74	112.79	108.20
1	EA	409	G	OP2-P-O3'	5.74	117.83	105.20
1	CA	1779	U	N3-C4-O4	-5.74	115.38	119.40
1	CA	1656	C	N3-C2-O2	5.74	125.92	121.90
1	EA	2510	C	N1-C2-O2	-5.74	115.46	118.90
1	GA	271	G	P-O3'-C3'	5.74	126.58	119.70
33	FA	481	G	C5-C6-O6	-5.73	125.16	128.60
33	FA	1305	G	C4-C5-N7	-5.73	108.51	110.80
33	DA	332	G	N3-C4-C5	5.73	131.47	128.60
33	DA	1489	G	C8-N9-C4	-5.73	104.11	106.40
1	EA	1291	C	C6-N1-C2	-5.73	118.01	120.30
1	GA	116	C	C6-N1-C2	-5.73	118.01	120.30
1	EA	1501	G	N1-C6-O6	5.73	123.34	119.90
1	GA	222	A	C8-N9-C4	5.73	108.09	105.80
1	CA	1794	A	C8-N9-C4	-5.73	103.51	105.80
33	FA	922	G	C8-N9-C4	-5.73	104.11	106.40
1	EA	140	C	N1-C2-O2	5.73	122.33	118.90
1	EA	810	U	O5'-P-OP2	-5.73	100.55	105.70
1	AA	1215	G	OP2-P-O3'	5.72	117.80	105.20
1	EA	195	A	C5-C6-N6	-5.72	119.12	123.70
1	EA	2581	G	N3-C4-C5	-5.72	125.74	128.60
1	GA	1063	G	C4-C5-N7	5.72	113.09	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1831	G	C8-N9-C4	-5.72	104.11	106.40
23	CW	40	ARG	NE-CZ-NH1	5.72	123.16	120.30
1	EA	2280	G	C8-N9-C4	-5.72	104.11	106.40
1	EA	2771	C	O5'-P-OP1	-5.72	100.55	105.70
1	EA	1252	G	O5'-P-OP2	-5.72	100.55	105.70
1	AA	1377	G	N1-C6-O6	-5.72	116.47	119.90
1	EA	782	A	C8-N9-C4	5.72	108.09	105.80
1	EA	1452	G	C4-C5-N7	5.72	113.09	110.80
1	GA	360	U	C5-C4-O4	-5.72	122.47	125.90
1	GA	467	G	O5'-P-OP2	-5.72	100.56	105.70
1	EA	1345	C	C6-N1-C2	-5.71	118.01	120.30
1	EA	2570	G	C6-C5-N7	5.71	133.83	130.40
1	EA	1555	G	C8-N9-C1'	-5.71	119.57	127.00
1	GA	207	A	C5-C6-N1	-5.71	114.84	117.70
1	CA	782	A	N1-C6-N6	-5.71	115.17	118.60
1	CA	1695	G	O5'-P-OP2	-5.71	100.56	105.70
1	EA	2052	A	C2-N3-C4	5.71	113.45	110.60
1	GA	140	C	N1-C2-O2	5.71	122.32	118.90
1	GA	1323	C	OP2-P-O3'	5.71	117.76	105.20
33	DA	530	G	N1-C6-O6	5.70	123.32	119.90
1	GA	1083	U	C6-N1-C2	-5.70	117.58	121.00
1	GA	1475	G	P-O3'-C3'	5.70	126.54	119.70
4	AD	151	THR	C-N-CD	5.70	140.37	128.40
1	GA	1093	G	C4-N9-C1'	5.70	133.91	126.50
33	HA	1087	G	C8-N9-C1'	-5.70	119.59	127.00
1	GA	2717	C	N3-C2-O2	-5.70	117.91	121.90
1	CA	1030	C	C2-N3-C4	-5.70	117.05	119.90
1	EA	578	G	N3-C4-N9	5.70	129.42	126.00
1	EA	865	C	N1-C2-N3	-5.70	115.21	119.20
2	EB	97	C	N3-C4-C5	5.69	124.18	121.90
33	HA	1137	C	C6-N1-C2	-5.69	118.02	120.30
1	CA	948	C	C6-N1-C2	-5.69	118.02	120.30
1	EA	2447	G	N3-C2-N2	-5.69	115.92	119.90
33	HA	1452	C	P-O3'-C3'	5.69	126.53	119.70
1	AA	2576	G	C6-C5-N7	-5.69	126.99	130.40
1	AA	2608	G	N1-C6-O6	5.69	123.31	119.90
1	GA	974	G	C4-C5-N7	5.69	113.08	110.80
1	AA	2639	A	N1-C6-N6	5.69	122.01	118.60
1	EA	669	G	C2-N3-C4	5.69	114.74	111.90
1	EA	972	A	C6-C5-N7	-5.69	128.32	132.30
1	AA	1737	G	N3-C4-N9	5.68	129.41	126.00
1	AA	2754	U	N3-C4-O4	5.68	123.38	119.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	1937	A	O4'-C1'-N9	5.68	112.75	108.20
1	EA	776	G	C5-C6-O6	5.68	132.01	128.60
33	HA	409	U	O5'-P-OP2	-5.68	100.58	105.70
1	EA	2449	U	N1-C2-O2	5.68	126.78	122.80
1	AA	1216	G	OP2-P-O3'	5.68	117.70	105.20
1	EA	1931	U	C5-C4-O4	-5.68	122.49	125.90
1	EA	2009	A	N1-C6-N6	5.68	122.01	118.60
1	EA	1229	C	OP2-P-O3'	5.68	117.69	105.20
1	AA	1429	G	N3-C4-C5	-5.68	125.76	128.60
33	DA	1423	G	C8-N9-C4	-5.68	104.13	106.40
1	EA	812	C	N1-C2-O2	-5.68	115.49	118.90
1	GA	1413	A	C5-C6-N6	-5.68	119.16	123.70
33	HA	1322	C	N1-C2-O2	5.68	122.31	118.90
33	FA	577	G	N3-C4-N9	-5.67	122.59	126.00
33	HA	1187	G	O5'-P-OP1	-5.67	100.59	105.70
33	BA	200	G	N1-C6-O6	5.67	123.30	119.90
1	EA	515	A	N1-C6-N6	-5.67	115.20	118.60
1	GA	751	A	N1-C6-N6	5.67	122.00	118.60
1	AA	512	G	N3-C4-N9	-5.67	122.60	126.00
1	EA	2710	C	N3-C4-N4	-5.67	114.03	118.00
1	AA	1190	G	N3-C4-C5	5.67	131.43	128.60
33	FA	1430	A	N1-C6-N6	-5.67	115.20	118.60
1	GA	1062	G	C4-N9-C1'	5.67	133.87	126.50
1	GA	1313	U	C2-N1-C1'	5.67	124.50	117.70
33	HA	1322	C	C2-N1-C1'	5.67	125.03	118.80
1	EA	1694	C	N3-C4-C5	-5.67	119.63	121.90
1	AA	1672	A	C8-N9-C4	5.66	108.07	105.80
1	CA	2351	G	C5-C6-O6	-5.66	125.20	128.60
1	AA	1025	G	OP2-P-O3'	5.66	117.66	105.20
1	EA	473	G	C5-C6-O6	5.66	132.00	128.60
33	FA	1188	A	N1-C6-N6	-5.66	115.20	118.60
1	EA	2071	A	P-O3'-C3'	5.66	126.49	119.70
1	AA	2611	C	O5'-P-OP2	-5.66	100.61	105.70
1	CA	212	G	N1-C6-O6	-5.66	116.51	119.90
1	EA	1252	G	N9-C4-C5	5.66	107.66	105.40
1	GA	1653	G	N3-C4-C5	-5.66	125.77	128.60
33	DA	511	C	C6-N1-C2	-5.65	118.04	120.30
33	HA	22	G	N1-C6-O6	5.65	123.29	119.90
1	GA	796	C	N1-C2-O2	-5.65	115.51	118.90
33	HA	1527	U	O5'-P-OP2	-5.65	100.61	105.70
1	AA	1091	G	C4-N9-C1'	-5.65	119.15	126.50
33	DA	1395	C	C6-N1-C2	5.65	122.56	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	DA	947	G	O5'-P-OP1	-5.65	100.62	105.70
2	EB	107	G	C8-N9-C4	5.65	108.66	106.40
1	AA	2250	G	C4-C5-N7	5.65	113.06	110.80
1	GA	1619	G	C5-C6-O6	5.65	131.99	128.60
1	GA	2508	G	C6-C5-N7	5.65	133.79	130.40
1	AA	654	A	C2-N3-C4	5.64	113.42	110.60
1	GA	2612	C	N1-C2-O2	5.64	122.28	118.90
2	CB	98	G	N7-C8-N9	-5.64	110.28	113.10
1	GA	1906	G	O4'-C1'-N9	-5.64	103.69	108.20
1	EA	911	A	C8-N9-C4	-5.64	103.54	105.80
1	EA	2505	G	O5'-P-OP2	-5.64	100.62	105.70
2	AB	110	C	N1-C2-O2	5.64	122.28	118.90
1	AA	236	C	C6-N1-C2	-5.64	118.05	120.30
32	A5	60	LEU	CB-CG-CD1	5.64	120.58	111.00
1	GA	1433	A	C8-N9-C4	-5.64	103.55	105.80
1	EA	2070	A	OP1-P-O3'	5.63	117.60	105.20
33	FA	1112	C	O5'-P-OP1	-5.63	100.63	105.70
1	GA	368	A	C8-N9-C4	5.63	108.05	105.80
1	GA	2023	C	C6-N1-C2	-5.63	118.05	120.30
1	AA	687	C	N3-C4-N4	5.63	121.94	118.00
1	CA	945	A	C2-N3-C4	5.63	113.42	110.60
1	CA	56	A	O5'-P-OP1	-5.63	100.63	105.70
1	AA	271	G	P-O3'-C3'	5.63	126.46	119.70
1	CA	2241	A	C8-N9-C4	-5.63	103.55	105.80
33	FA	733	G	C5-C6-O6	-5.63	125.22	128.60
1	CA	974	G	C8-N9-C1'	-5.63	119.68	127.00
1	CA	2015	A	C2-N3-C4	5.63	113.41	110.60
1	CA	2362	C	C6-N1-C2	-5.63	118.05	120.30
1	EA	978	G	O5'-P-OP2	-5.63	100.64	105.70
1	EA	2489	U	OP2-P-O3'	5.63	117.58	105.20
1	CA	2017	U	N1-C2-O2	-5.63	118.86	122.80
1	AA	1238	G	O4'-C1'-N9	5.62	112.70	108.20
1	EA	1227	G	C5-C6-N1	-5.62	108.69	111.50
1	AA	2442	C	C6-N1-C2	-5.62	118.05	120.30
1	EA	1830	C	O5'-P-OP2	-5.62	100.64	105.70
1	EA	1985	C	OP1-P-OP2	-5.62	111.16	119.60
1	GA	740	C	C6-N1-C2	-5.62	118.05	120.30
1	GA	1025	G	OP2-P-O3'	5.62	117.57	105.20
1	GA	2282	G	N3-C4-C5	-5.62	125.79	128.60
2	GB	90	C	O5'-P-OP1	-5.62	100.64	105.70
1	CA	205	G	O4'-C1'-N9	5.62	112.70	108.20
1	CA	2659	G	C5-C6-N1	-5.62	108.69	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	E5	50	VAL	CA-CB-CG1	5.62	119.33	110.90
1	GA	2323	G	C6-C5-N7	-5.62	127.03	130.40
1	CA	2308	G	O4'-C1'-N9	-5.62	103.70	108.20
33	DA	115	G	N3-C4-C5	-5.62	125.79	128.60
1	EA	1971	U	O5'-P-OP2	-5.62	100.64	105.70
1	GA	2506	U	N3-C2-O2	-5.62	118.27	122.20
1	AA	1350	C	N1-C2-O2	-5.62	115.53	118.90
33	BA	1279	G	N7-C8-N9	5.62	115.91	113.10
1	CA	345	A	N1-C6-N6	5.61	121.97	118.60
1	CA	865	C	N1-C2-O2	5.61	122.27	118.90
1	CA	1606	C	P-O3'-C3'	5.61	126.44	119.70
1	EA	2440	C	C5-C4-N4	5.61	124.13	120.20
1	EA	2570	G	N1-C6-O6	-5.61	116.53	119.90
1	AA	2204	G	C4-C5-N7	5.61	113.05	110.80
33	DA	1322	C	C6-N1-C1'	-5.61	114.07	120.80
1	GA	1906	G	C8-N9-C4	-5.61	104.16	106.40
1	EA	595	C	O5'-P-OP2	-5.61	100.65	105.70
1	EA	2143	C	C6-N1-C2	-5.61	118.06	120.30
1	EA	2578	G	C5-C6-O6	5.61	131.97	128.60
33	DA	1322	C	C2-N1-C1'	5.61	124.97	118.80
1	CA	1174	U	C2-N1-C1'	5.61	124.43	117.70
1	CA	2799	A	N1-C6-N6	5.61	121.96	118.60
1	CA	2061	G	C2-N3-C4	-5.61	109.10	111.90
33	FA	481	G	O4'-C1'-N9	-5.61	103.72	108.20
1	AA	690	G	N3-C2-N2	-5.60	115.98	119.90
1	EA	819	A	C2-N3-C4	-5.60	107.80	110.60
1	GA	663	G	C5-C6-N1	-5.60	108.70	111.50
1	GA	2448	A	C5-C6-N6	-5.60	119.22	123.70
33	BA	1515	G	C5-C6-O6	-5.59	125.24	128.60
1	CA	1131	G	OP1-P-O3'	5.59	117.50	105.20
1	GA	54	G	OP1-P-O3'	5.59	117.51	105.20
1	CA	45	G	C4-C5-N7	-5.59	108.56	110.80
1	CA	583	G	C5-C6-O6	-5.59	125.25	128.60
1	EA	1543	G	O5'-P-OP1	-5.59	100.67	105.70
33	BA	1145	A	C4-C5-C6	-5.59	114.20	117.00
33	DA	1098	C	C6-N1-C2	-5.59	118.06	120.30
33	FA	1186	G	OP1-P-O3'	5.59	117.50	105.20
1	GA	2457	U	C6-N1-C2	-5.59	117.65	121.00
1	CA	614	A	N1-C6-N6	5.59	121.95	118.60
1	CA	2747	G	C6-C5-N7	-5.59	127.05	130.40
1	GA	458	G	C5-C6-O6	-5.59	125.25	128.60
1	AA	570	G	C6-C5-N7	-5.58	127.05	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	2250	G	C5-C6-O6	-5.58	125.25	128.60
42	BJ	36	VAL	CG1-CB-CG2	-5.58	101.97	110.90
1	CA	1833	C	N3-C4-N4	-5.58	114.09	118.00
1	EA	1452	G	N3-C4-N9	-5.58	122.65	126.00
1	EA	2648	G	N1-C6-O6	5.58	123.25	119.90
1	AA	503	A	C8-N9-C4	-5.58	103.57	105.80
33	BA	321	A	N1-C6-N6	5.58	121.95	118.60
1	CA	2719	G	C4-C5-C6	5.58	122.15	118.80
33	HA	211	G	C2-N3-C4	5.58	114.69	111.90
1	CA	1215	G	N1-C6-O6	5.58	123.25	119.90
1	EA	1996	C	C6-N1-C2	5.58	122.53	120.30
1	GA	2072	C	C6-N1-C2	-5.58	118.07	120.30
33	DA	884	U	O4'-C1'-N1	5.57	112.66	108.20
1	GA	75	G	N1-C6-O6	5.57	123.24	119.90
1	GA	1063	G	C8-N9-C1'	-5.57	119.75	127.00
33	HA	5	U	C5-C6-N1	5.57	125.49	122.70
1	AA	196	A	N1-C6-N6	5.57	121.94	118.60
1	EA	479	A	P-O3'-C3'	5.57	126.39	119.70
33	HA	779	C	N3-C2-O2	-5.57	118.00	121.90
1	AA	2047	C	C6-N1-C2	5.57	122.53	120.30
1	CA	784	G	O4'-C1'-N9	-5.57	103.74	108.20
1	CA	1936	A	C2-N3-C4	-5.57	107.81	110.60
1	EA	2038	G	N1-C6-O6	5.57	123.24	119.90
33	FA	1522	U	O5'-P-OP2	-5.57	100.69	105.70
1	AA	1387	A	C8-N9-C4	-5.57	103.57	105.80
1	EA	398	C	C6-N1-C2	5.57	122.53	120.30
1	CA	914	G	N3-C4-C5	5.57	131.38	128.60
1	CA	2553	G	C6-C5-N7	-5.57	127.06	130.40
1	EA	542	C	C2-N3-C4	5.57	122.68	119.90
1	EA	673	C	C5-C4-N4	-5.57	116.30	120.20
1	GA	1328	A	O5'-P-OP2	-5.57	100.69	105.70
1	AA	783	A	C4-C5-C6	5.57	119.78	117.00
1	EA	846	U	N1-C1'-C2'	5.57	121.23	114.00
1	AA	1606	C	P-O3'-C3'	5.56	126.37	119.70
1	EA	2064	C	OP1-P-O3'	5.56	117.44	105.20
1	GA	1508	A	O4'-C1'-N9	5.56	112.65	108.20
1	CA	650	C	C6-N1-C2	-5.56	118.08	120.30
1	EA	2729	G	C4-N9-C1'	5.56	133.73	126.50
1	AA	921	C	N1-C2-O2	-5.56	115.56	118.90
1	AA	1169	A	N1-C6-N6	5.56	121.94	118.60
1	AA	1738	G	N3-C4-N9	-5.56	122.67	126.00
1	EA	2578	G	C4-C5-N7	-5.56	108.58	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	1570	A	N1-C6-N6	5.56	121.94	118.60
1	EA	140	C	N3-C2-O2	-5.56	118.01	121.90
33	HA	5	U	O4'-C1'-N1	-5.56	103.75	108.20
33	HA	1362	A	N1-C6-N6	-5.56	115.27	118.60
1	AA	1649	G	N3-C4-C5	-5.56	125.82	128.60
1	EA	752	A	C5-N7-C8	-5.55	101.12	103.90
1	EA	814	C	N3-C2-O2	-5.55	118.01	121.90
1	EA	1125	G	C2-N3-C4	-5.55	109.12	111.90
1	GA	675	A	O5'-P-OP2	-5.55	100.70	105.70
1	AA	372	G	C4-N9-C1'	-5.55	119.28	126.50
1	AA	1026	G	C4-N9-C1'	5.55	133.72	126.50
33	BA	974	A	O5'-P-OP1	-5.55	100.70	105.70
33	FA	757	U	C6-N1-C2	5.55	124.33	121.00
33	FA	1282	C	C6-N1-C2	-5.55	118.08	120.30
33	BA	72	A	C8-N9-C4	-5.55	103.58	105.80
1	CA	1452	G	C4-N9-C1'	5.55	133.72	126.50
1	AA	2445	G	N1-C6-O6	5.55	123.23	119.90
33	BA	1054	C	N3-C2-O2	-5.55	118.02	121.90
1	CA	1094	U	O4'-C1'-N1	5.55	112.64	108.20
1	EA	121	G	C5-C6-O6	-5.55	125.27	128.60
1	EA	2084	C	N1-C2-O2	-5.55	115.57	118.90
1	EA	2429	G	O5'-P-OP1	5.55	117.36	110.70
1	GA	840	C	C6-N1-C2	5.55	122.52	120.30
1	GA	2423	U	P-O3'-C3'	5.55	126.36	119.70
1	AA	546	U	O4'-C1'-N1	5.55	112.64	108.20
1	AA	1687	G	N3-C4-C5	-5.55	125.83	128.60
1	CA	781	A	O5'-P-OP1	-5.55	100.71	105.70
1	AA	1728	C	C6-N1-C2	-5.54	118.08	120.30
1	EA	117	G	C8-N9-C4	-5.54	104.18	106.40
1	EA	694	U	N1-C2-N3	5.54	118.23	114.90
1	GA	542	C	N3-C4-C5	-5.54	119.68	121.90
33	HA	115	G	P-O3'-C3'	5.54	126.35	119.70
2	CB	89	U	O4'-C1'-N1	-5.54	103.77	108.20
1	AA	198	C	C5-C4-N4	-5.54	116.32	120.20
33	DA	574	A	C8-N9-C4	5.54	108.02	105.80
1	EA	1610	A	O5'-P-OP1	-5.54	100.71	105.70
1	GA	1063	G	N9-C4-C5	-5.54	103.18	105.40
33	HA	305	G	C8-N9-C4	-5.54	104.19	106.40
1	AA	1665	A	OP1-P-O3'	5.54	117.38	105.20
1	CA	2060	A	N9-C4-C5	5.54	108.02	105.80
1	EA	1321	A	C8-N9-C4	-5.54	103.58	105.80
1	EA	1782	U	N3-C2-O2	-5.54	118.33	122.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	825	A	O5'-P-OP2	-5.53	100.72	105.70
1	EA	1156	A	OP1-P-O3'	5.53	117.37	105.20
1	AA	1270	C	O5'-P-OP1	-5.53	100.72	105.70
1	EA	1935	G	N9-C4-C5	5.53	107.61	105.40
1	EA	2048	G	C8-N9-C4	-5.53	104.19	106.40
2	EB	107	G	N9-C4-C5	-5.53	103.19	105.40
1	AA	2898	U	N1-C2-O2	-5.53	118.93	122.80
1	AA	2610	C	N1-C2-O2	5.53	122.22	118.90
1	CA	469	G	N1-C6-O6	5.53	123.22	119.90
1	EA	1730	C	C2-N3-C4	-5.53	117.14	119.90
1	GA	2076	U	N3-C2-O2	-5.52	118.33	122.20
1	AA	1369	G	N1-C6-O6	5.52	123.21	119.90
1	AA	2204	G	N1-C6-O6	5.52	123.21	119.90
1	EA	244	A	N1-C6-N6	5.52	121.91	118.60
1	EA	1328	A	OP2-P-O3'	5.52	117.34	105.20
1	AA	1180	U	C2-N1-C1'	5.52	124.32	117.70
1	AA	1644	C	O5'-P-OP1	-5.52	100.73	105.70
2	AB	101	A	N7-C8-N9	-5.52	111.04	113.80
1	EA	747	U	C5-C6-N1	5.52	125.46	122.70
32	E5	60	LEU	CB-CG-CD2	5.52	120.38	111.00
1	AA	2502	G	N9-C4-C5	5.52	107.61	105.40
32	A5	50	VAL	CA-CB-CG1	5.51	119.17	110.90
1	CA	1955	U	O4'-C1'-N1	5.51	112.61	108.20
2	CB	21	G	O5'-P-OP2	-5.51	100.74	105.70
33	DA	29	U	O5'-P-OP1	-5.51	100.74	105.70
1	EA	694	U	C5-C4-O4	5.51	129.21	125.90
16	EP	50	ARG	CB-CG-CD	5.51	125.93	111.60
1	CA	1784	A	C8-N9-C4	5.51	108.00	105.80
1	CA	2248	C	O5'-P-OP1	-5.51	100.74	105.70
1	EA	51	G	C5-C6-O6	5.51	131.91	128.60
1	EA	130	C	N1-C2-O2	-5.51	115.59	118.90
1	EA	578	G	C5-C6-O6	-5.51	125.29	128.60
1	EA	613	A	C8-N9-C4	-5.51	103.60	105.80
1	GA	451	U	O4'-C1'-N1	5.51	112.61	108.20
1	AA	200	U	N3-C2-O2	5.51	126.06	122.20
1	EA	180	G	C5-C6-O6	-5.51	125.29	128.60
1	EA	783	A	N3-C4-C5	5.51	130.66	126.80
1	EA	1124	G	N1-C6-O6	5.51	123.21	119.90
1	EA	914	G	C6-C5-N7	-5.51	127.09	130.40
1	EA	975	A	C8-N9-C4	-5.51	103.60	105.80
1	EA	141	G	C4-N9-C1'	5.51	133.66	126.50
33	FA	514	C	C6-N1-C2	-5.51	118.10	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	808	G	C8-N9-C1'	-5.51	119.84	127.00
33	HA	1362	A	C6-C5-N7	5.51	136.15	132.30
33	DA	1099	G	N9-C4-C5	5.50	107.60	105.40
1	EA	2447	G	C4-N9-C1'	5.50	133.66	126.50
1	CA	832	U	O5'-P-OP1	5.50	117.30	110.70
1	EA	141	G	C8-N9-C4	-5.50	104.20	106.40
1	EA	790	U	O4'-C1'-N1	5.50	112.60	108.20
1	EA	923	G	N3-C4-N9	5.50	129.30	126.00
1	EA	2366	A	O5'-P-OP2	-5.50	100.75	105.70
1	AA	2146	C	C6-N1-C2	-5.50	118.10	120.30
1	EA	2042	A	C8-N9-C4	-5.50	103.60	105.80
1	GA	2006	C	N3-C4-N4	5.50	121.85	118.00
1	EA	1571	A	OP2-P-O3'	5.50	117.30	105.20
33	HA	779	C	N1-C2-O2	5.50	122.20	118.90
1	AA	2585	U	P-O3'-C3'	5.50	126.30	119.70
1	CA	1178	C	C6-N1-C2	-5.50	118.10	120.30
1	GA	1738	G	C8-N9-C4	-5.50	104.20	106.40
33	DA	462	G	C8-N9-C4	-5.50	104.20	106.40
33	DA	1530	G	C4-N9-C1'	-5.50	119.35	126.50
1	EA	830	G	OP1-P-OP2	5.50	127.84	119.60
1	EA	1141	U	C6-N1-C2	-5.50	117.70	121.00
32	A5	41	LEU	CB-CG-CD1	-5.49	101.66	111.00
33	BA	1362	A	C6-C5-N7	5.49	136.15	132.30
1	CA	1713	A	N9-C4-C5	-5.49	103.60	105.80
1	CA	1913	A	N7-C8-N9	-5.49	111.05	113.80
2	AB	76	G	N3-C4-N9	5.49	129.29	126.00
1	CA	1913	A	C4-C5-N7	-5.49	107.96	110.70
1	CA	2544	G	N1-C2-N3	5.49	127.19	123.90
1	EA	776	G	C4-C5-C6	5.49	122.09	118.80
33	FA	973	G	C8-N9-C4	-5.49	104.20	106.40
33	BA	1364	U	N3-C2-O2	-5.49	118.36	122.20
1	CA	783	A	C4-C5-N7	5.49	113.44	110.70
33	DA	328	C	N1-C2-O2	5.49	122.19	118.90
33	DA	351	G	C5-N7-C8	-5.49	101.56	104.30
33	HA	1530	G	C4-N9-C1'	-5.48	119.37	126.50
1	EA	1247	A	P-O3'-C3'	5.48	126.28	119.70
33	FA	450	G	N3-C4-N9	5.48	129.29	126.00
1	AA	2609	U	O5'-P-OP2	-5.48	100.77	105.70
1	EA	825	A	N9-C4-C5	5.48	107.99	105.80
24	EX	70	LEU	CA-CB-CG	5.48	127.90	115.30
1	AA	1651	G	OP1-P-OP2	-5.48	111.38	119.60
33	FA	1111	A	OP1-P-O3'	5.48	117.25	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	2358	A	C5-C6-N6	5.48	128.08	123.70
14	CN	45	ARG	CG-CD-NE	5.48	123.30	111.80
1	CA	2414	G	N1-C6-O6	5.47	123.18	119.90
1	EA	375	G	C4-C5-C6	5.47	122.08	118.80
1	AA	655	A	C8-N9-C4	-5.47	103.61	105.80
1	EA	920	A	OP2-P-O3'	5.47	117.24	105.20
33	HA	328	C	N3-C2-O2	-5.47	118.07	121.90
1	AA	1261	C	OP1-P-OP2	-5.47	111.40	119.60
1	AA	2505	G	C6-C5-N7	-5.47	127.12	130.40
33	BA	251	G	N3-C2-N2	-5.47	116.07	119.90
1	EA	1394	U	O4'-C1'-N1	-5.47	103.83	108.20
1	EA	2179	C	C6-N1-C2	-5.47	118.11	120.30
1	EA	2700	A	C8-N9-C4	-5.47	103.61	105.80
33	DA	84	U	N3-C2-O2	-5.47	118.37	122.20
1	AA	559	G	C6-C5-N7	-5.47	127.12	130.40
33	FA	905	U	O5'-P-OP2	5.47	117.26	110.70
1	GA	2436	G	C8-N9-C4	-5.47	104.21	106.40
1	AA	2228	G	N1-C6-O6	5.46	123.18	119.90
33	BA	737	C	C6-N1-C2	-5.46	118.11	120.30
1	CA	834	G	N7-C8-N9	5.46	115.83	113.10
1	CA	1726	C	C6-N1-C1'	-5.46	114.24	120.80
1	EA	904	G	N3-C4-C5	5.46	131.33	128.60
1	GA	249	C	C2-N1-C1'	5.46	124.81	118.80
33	HA	70	U	C2-N1-C1'	5.46	124.26	117.70
1	AA	2397	G	N3-C4-N9	-5.46	122.72	126.00
33	BA	560	A	N1-C6-N6	5.46	121.88	118.60
2	AB	56	G	C4-N9-C1'	5.46	133.60	126.50
1	EA	2502	G	N3-C4-C5	-5.46	125.87	128.60
33	HA	1086	U	C2-N1-C1'	5.46	124.25	117.70
2	AB	8	C	N1-C2-O2	5.46	122.17	118.90
33	HA	1362	A	C4-N9-C1'	-5.46	116.48	126.30
1	AA	164	C	C6-N1-C2	-5.46	118.12	120.30
1	AA	771	G	OP2-P-O3'	5.46	117.20	105.20
33	DA	352	C	C6-N1-C2	5.46	122.48	120.30
33	BA	485	U	N3-C2-O2	-5.45	118.38	122.20
1	CA	787	C	C6-N1-C2	-5.45	118.12	120.30
1	AA	2502	G	C8-N9-C4	-5.45	104.22	106.40
1	CA	45	G	C5-C6-O6	5.45	131.87	128.60
1	EA	2595	G	C5-C6-N1	5.45	114.22	111.50
33	HA	1201	A	P-O3'-C3'	5.45	126.24	119.70
1	AA	792	A	C4-C5-N7	5.45	113.42	110.70
1	CA	1257	C	C6-N1-C2	-5.45	118.12	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CB	98	G	N3-C4-N9	-5.45	122.73	126.00
5	EE	44	ARG	NE-CZ-NH1	-5.45	117.58	120.30
1	GA	1780	A	OP1-P-O3'	5.45	117.19	105.20
1	AA	1713	A	C5-C6-N6	-5.45	119.34	123.70
1	CA	673	C	N3-C4-N4	5.45	121.81	118.00
1	EA	2072	C	C6-N1-C2	-5.44	118.12	120.30
1	GA	1891	G	N1-C6-O6	5.44	123.17	119.90
1	AA	1695	G	N3-C4-N9	5.44	129.27	126.00
33	BA	115	G	P-O3'-C3'	5.44	126.23	119.70
1	EA	2279	G	N1-C6-O6	5.44	123.17	119.90
1	EA	997	G	C8-N9-C4	5.44	108.58	106.40
1	CA	1030	C	C2-N1-C1'	-5.44	112.82	118.80
1	EA	2419	U	N1-C2-O2	-5.44	118.99	122.80
1	EA	2555	U	N1-C2-O2	-5.44	118.99	122.80
1	AA	204	A	C8-N9-C4	5.44	107.97	105.80
1	EA	1606	C	C2-N1-C1'	5.44	124.78	118.80
1	AA	870	U	N3-C2-O2	5.43	126.00	122.20
1	CA	374	A	C8-N9-C4	5.43	107.97	105.80
1	CA	1967	C	O5'-P-OP2	-5.43	100.81	105.70
1	GA	2038	G	C5-C6-O6	-5.43	125.34	128.60
1	AA	816	C	C6-N1-C2	5.43	122.47	120.30
1	AA	1691	C	N1-C2-O2	-5.43	115.64	118.90
1	EA	972	A	OP1-P-O3'	5.43	117.15	105.20
1	GA	2410	G	N3-C2-N2	-5.43	116.10	119.90
33	HA	1031	C	O5'-P-OP1	-5.43	100.81	105.70
1	CA	1169	A	N1-C6-N6	5.43	121.86	118.60
1	CA	2526	G	N1-C6-O6	5.43	123.16	119.90
1	EA	180	G	N1-C6-O6	5.43	123.16	119.90
1	AA	931	U	P-O3'-C3'	5.43	126.22	119.70
1	AA	1713	A	N9-C4-C5	-5.43	103.63	105.80
1	CA	2351	G	C4-C5-N7	5.43	112.97	110.80
33	DA	485	U	N1-C2-O2	5.43	126.60	122.80
1	EA	260	G	C5-C6-O6	5.43	131.86	128.60
1	EA	570	G	C6-C5-N7	-5.43	127.14	130.40
1	EA	2215	C	O5'-P-OP1	-5.43	100.81	105.70
3	AC	176	ARG	NE-CZ-NH1	-5.43	117.59	120.30
33	DA	489	C	C6-N1-C2	-5.43	118.13	120.30
1	EA	733	G	N3-C4-N9	5.43	129.25	126.00
1	CA	1401	G	C8-N9-C4	-5.42	104.23	106.40
1	EA	124	G	N3-C4-N9	-5.42	122.75	126.00
1	EA	207	A	C2-N3-C4	-5.42	107.89	110.60
33	FA	481	G	N3-C4-N9	5.42	129.25	126.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	2508	G	C5-C6-O6	5.42	131.85	128.60
1	AA	1328	A	O5'-P-OP1	5.42	117.21	110.70
1	CA	1386	C	C6-N1-C2	-5.42	118.13	120.30
1	AA	271	G	OP1-P-O3'	5.42	117.12	105.20
1	CA	923	G	N3-C4-N9	5.42	129.25	126.00
1	EA	622	G	OP2-P-O3'	5.42	117.13	105.20
1	CA	128	C	N1-C2-O2	-5.42	115.65	118.90
1	CA	2260	C	C6-N1-C2	-5.42	118.13	120.30
1	AA	546	U	C2-N1-C1'	5.42	124.20	117.70
1	CA	479	A	O4'-C1'-N9	5.42	112.53	108.20
1	CA	2623	G	N1-C6-O6	5.42	123.15	119.90
1	CA	2747	G	C5-C6-O6	-5.42	125.35	128.60
1	EA	2054	A	OP2-P-O3'	5.42	117.11	105.20
33	FA	913	A	C8-N9-C4	-5.42	103.63	105.80
1	CA	2513	A	N1-C6-N6	-5.42	115.35	118.60
32	A5	50	VAL	CG1-CB-CG2	5.41	119.56	110.90
1	CA	2685	G	C5-C6-N1	-5.41	108.79	111.50
1	CA	2766	A	O5'-P-OP2	-5.41	100.83	105.70
1	GA	199	A	N1-C6-N6	-5.41	115.35	118.60
1	AA	663	G	C2-N3-C4	-5.41	109.19	111.90
1	CA	517	C	C6-N1-C2	-5.41	118.14	120.30
1	EA	1321	A	O4'-C1'-N9	5.41	112.53	108.20
32	E5	60	LEU	CB-CG-CD1	5.41	120.20	111.00
1	GA	776	G	O4'-C1'-N9	-5.41	103.87	108.20
1	GA	1653	G	N3-C4-N9	5.41	129.25	126.00
1	AA	1670	C	N3-C2-O2	5.41	125.69	121.90
2	CB	79	G	N1-C2-N2	-5.41	111.33	116.20
33	DA	32	A	O5'-P-OP2	-5.41	100.83	105.70
1	EA	1746	A	C5-C6-N6	-5.41	119.37	123.70
1	GA	2282	G	C8-N9-C4	-5.41	104.24	106.40
1	EA	254	G	C8-N9-C4	5.41	108.56	106.40
1	CA	1509	A	P-O3'-C3'	5.41	126.19	119.70
1	CA	1921	G	C8-N9-C4	-5.41	104.24	106.40
1	EA	1068	G	N3-C4-C5	-5.41	125.90	128.60
1	EA	1475	G	P-O3'-C3'	5.41	126.19	119.70
1	EA	205	G	N1-C6-O6	-5.40	116.66	119.90
2	AB	85	G	N1-C6-O6	5.40	123.14	119.90
1	EA	624	C	O5'-P-OP1	5.40	117.18	110.70
1	EA	834	G	C4-C5-N7	5.40	112.96	110.80
33	FA	79	G	N3-C4-N9	5.40	129.24	126.00
1	GA	2455	G	OP2-P-O3'	5.40	117.08	105.20
1	CA	1839	G	C8-N9-C4	5.40	108.56	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	511	U	OP2-P-O3'	5.40	117.08	105.20
1	EA	1656	C	C6-N1-C2	-5.40	118.14	120.30
1	GA	1827	U	C5-C6-N1	5.40	125.40	122.70
1	GA	1972	G	OP2-P-O3'	5.40	117.07	105.20
1	AA	770	G	N1-C6-O6	-5.39	116.66	119.90
1	AA	2608	G	O5'-P-OP2	-5.39	100.84	105.70
1	EA	2448	A	C8-N9-C4	-5.39	103.64	105.80
1	CA	1266	G	C8-N9-C4	5.39	108.56	106.40
1	CA	2232	C	N1-C2-O2	-5.39	115.66	118.90
1	CA	2250	G	OP1-P-O3'	5.39	117.06	105.20
1	EA	587	C	O4'-C1'-N1	-5.39	103.89	108.20
1	EA	2039	U	N3-C4-O4	5.39	123.17	119.40
1	EA	2539	C	C2-N3-C4	-5.39	117.20	119.90
1	AA	237	C	N3-C4-C5	-5.39	119.74	121.90
1	EA	1310	G	N9-C4-C5	5.39	107.56	105.40
1	EA	2611	C	N3-C4-N4	-5.39	114.23	118.00
1	GA	2307	G	N9-C4-C5	-5.39	103.24	105.40
1	AA	1833	C	N1-C2-O2	-5.39	115.67	118.90
33	DA	485	U	N3-C2-O2	-5.39	118.43	122.20
1	EA	1325	U	N3-C2-O2	-5.39	118.43	122.20
1	AA	298	G	C5-N7-C8	-5.39	101.61	104.30
2	AB	2	G	C4-N9-C1'	5.39	133.50	126.50
1	CA	1299	G	C5-C6-O6	-5.39	125.37	128.60
1	EA	2731	G	C6-C5-N7	-5.39	127.17	130.40
1	EA	1831	G	C8-N9-C4	-5.38	104.25	106.40
1	GA	1873	G	N3-C4-N9	5.38	129.23	126.00
1	EA	520	G	C4-C5-N7	-5.38	108.65	110.80
1	EA	1831	G	N9-C4-C5	5.38	107.55	105.40
1	AA	1998	A	O5'-P-OP2	-5.38	100.86	105.70
1	GA	1565	C	O5'-P-OP1	-5.38	100.86	105.70
1	AA	1395	A	O4'-C1'-N9	5.38	112.50	108.20
1	CA	1779	U	C5-C4-O4	5.38	129.13	125.90
1	AA	2544	G	N3-C4-N9	5.38	129.23	126.00
33	BA	319	G	C4-N9-C1'	-5.38	119.51	126.50
33	HA	1511	G	N1-C6-O6	5.38	123.13	119.90
1	AA	140	C	C2-N1-C1'	5.38	124.71	118.80
1	AA	1269	A	C2-N3-C4	-5.38	107.91	110.60
1	AA	2619	C	O5'-P-OP1	5.38	117.15	110.70
1	EA	915	C	N3-C2-O2	-5.38	118.14	121.90
1	AA	1916	A	N1-C6-N6	5.38	121.83	118.60
33	BA	365	U	N3-C4-O4	-5.37	115.64	119.40
1	CA	1840	G	N1-C6-O6	5.37	123.12	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	180	G	N3-C4-C5	5.37	131.29	128.60
2	EB	66	A	C6-C5-N7	-5.37	128.54	132.30
33	FA	1524	C	N1-C2-O2	-5.37	115.68	118.90
1	GA	1093	G	C8-N9-C1'	-5.37	120.01	127.00
1	AA	298	G	C4-C5-N7	5.37	112.95	110.80
1	AA	1338	G	C8-N9-C4	-5.37	104.25	106.40
1	AA	2065	C	N3-C4-N4	5.37	121.76	118.00
1	EA	142	A	N1-C6-N6	5.37	121.82	118.60
1	EA	2754	U	N3-C4-C5	-5.37	111.38	114.60
1	GA	1447	C	O5'-P-OP1	-5.37	100.87	105.70
1	CA	1737	G	C8-N9-C4	-5.37	104.25	106.40
13	EM	16	ARG	NE-CZ-NH1	5.37	122.98	120.30
1	EA	2032	G	O5'-P-OP1	-5.36	100.87	105.70
1	EA	480	A	O5'-P-OP2	-5.36	100.87	105.70
1	EA	1131	G	C4-C5-N7	5.36	112.94	110.80
1	EA	1377	G	O5'-P-OP2	-5.36	100.88	105.70
1	EA	2455	G	N3-C4-C5	-5.36	125.92	128.60
1	GA	1130	U	C5-C4-O4	-5.36	122.69	125.90
1	GA	2140	G	O4'-C1'-N9	5.36	112.49	108.20
1	AA	2593	U	N1-C2-O2	-5.36	119.05	122.80
16	CP	52	ARG	NE-CZ-NH2	-5.36	117.62	120.30
1	EA	733	G	N9-C4-C5	-5.36	103.26	105.40
1	AA	2207	C	C6-N1-C2	-5.36	118.16	120.30
1	CA	876	C	P-O3'-C3'	5.36	126.13	119.70
1	CA	2224	G	C4-C5-N7	5.35	112.94	110.80
33	FA	1366	C	C6-N1-C2	5.35	122.44	120.30
1	CA	1996	C	O5'-P-OP1	-5.35	100.88	105.70
1	EA	2547	A	N9-C4-C5	5.35	107.94	105.80
1	AA	1091	G	C8-N9-C1'	5.35	133.96	127.00
1	AA	1233	C	O5'-P-OP1	-5.35	100.89	105.70
1	EA	1174	U	C5-C6-N1	5.35	125.37	122.70
1	EA	1249	U	O5'-P-OP2	-5.35	100.89	105.70
1	EA	2084	C	N3-C4-N4	5.35	121.75	118.00
1	GA	736	C	N3-C4-C5	5.35	124.04	121.90
1	GA	2502	G	N1-C6-O6	-5.35	116.69	119.90
1	AA	1544	A	C8-N9-C4	-5.35	103.66	105.80
1	EA	534	U	N1-C2-N3	5.35	118.11	114.90
1	AA	1122	G	N1-C2-N2	5.35	121.01	116.20
1	AA	1930	G	C4-N9-C1'	-5.35	119.55	126.50
33	BA	200	G	C5-C6-O6	-5.35	125.39	128.60
33	HA	177	G	C8-N9-C4	-5.35	104.26	106.40
1	EA	577	G	C4-C5-N7	-5.34	108.66	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1069	A	OP2-P-O3'	5.34	116.95	105.20
1	EA	1034	G	N9-C4-C5	5.34	107.54	105.40
1	GA	2498	C	C5-C4-N4	-5.34	116.46	120.20
1	AA	1690	A	N1-C6-N6	5.34	121.80	118.60
25	EY	56	LEU	CA-CB-CG	5.34	127.58	115.30
1	AA	464	U	OP2-P-O3'	5.34	116.95	105.20
1	AA	2053	G	C2-N3-C4	-5.34	109.23	111.90
1	AA	2550	G	C4-C5-N7	5.34	112.94	110.80
1	CA	2062	A	C8-N9-C4	5.34	107.94	105.80
1	EA	1670	C	C6-N1-C2	-5.34	118.16	120.30
1	EA	2608	G	N1-C6-O6	5.34	123.10	119.90
1	EA	2703	C	C6-N1-C2	-5.34	118.16	120.30
1	EA	2747	G	C5-C6-O6	-5.34	125.40	128.60
1	CA	776	G	C8-N9-C4	-5.34	104.27	106.40
1	EA	570	G	C4-C5-C6	5.34	122.00	118.80
2	EB	66	A	C8-N9-C4	5.34	107.94	105.80
1	CA	45	G	N1-C6-O6	-5.34	116.70	119.90
1	CA	2368	C	O5'-P-OP1	-5.34	100.90	105.70
33	DA	351	G	C4-C5-N7	5.34	112.94	110.80
1	EA	636	G	N1-C6-O6	5.34	123.10	119.90
1	EA	1965	C	N3-C4-C5	5.34	124.03	121.90
33	FA	1410	A	C8-N9-C4	-5.34	103.67	105.80
33	BA	996	A	O4'-C1'-N9	5.33	112.47	108.20
1	GA	2600	A	C8-N9-C4	-5.33	103.67	105.80
1	EA	776	G	C8-N9-C4	-5.33	104.27	106.40
1	EA	2712	C	N3-C2-O2	5.33	125.63	121.90
1	EA	785	G	N3-C4-C5	5.33	131.26	128.60
33	FA	1197	A	N1-C6-N6	5.33	121.80	118.60
33	HA	582	C	N3-C2-O2	5.33	125.63	121.90
1	AA	376	G	N3-C4-C5	-5.33	125.94	128.60
1	AA	2550	G	C6-C5-N7	-5.33	127.20	130.40
1	CA	1061	U	N1-C2-O2	5.33	126.53	122.80
1	CA	2590	A	C8-N9-C4	-5.33	103.67	105.80
1	EA	2211	A	P-O3'-C3'	5.33	126.09	119.70
1	EA	2228	G	C5-C6-O6	-5.33	125.40	128.60
1	EA	142	A	P-O3'-C3'	5.33	126.09	119.70
1	AA	1625	C	C6-N1-C2	5.33	122.43	120.30
1	AA	2228	G	C8-N9-C1'	-5.33	120.08	127.00
33	BA	684	U	N1-C2-N3	5.33	118.10	114.90
1	CA	2106	U	C5-C6-N1	5.33	125.36	122.70
1	GA	805	G	N3-C4-N9	5.33	129.19	126.00
1	AA	799	G	OP2-P-O3'	5.32	116.91	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	2570	G	N3-C4-N9	-5.32	122.81	126.00
54	FV	93	VAL	N-CA-C	-5.32	96.63	111.00
1	GA	1847	A	P-O3'-C3'	5.32	126.09	119.70
1	AA	2252	G	C6-C5-N7	-5.32	127.21	130.40
33	BA	1099	G	N1-C6-O6	-5.32	116.71	119.90
1	EA	2431	U	O5'-P-OP2	-5.32	100.91	105.70
1	EA	2582	G	C8-N9-C4	-5.32	104.27	106.40
33	FA	575	G	C4-C5-N7	-5.32	108.67	110.80
1	AA	1319	C	C6-N1-C2	-5.32	118.17	120.30
1	CA	1830	C	C6-N1-C2	-5.32	118.17	120.30
1	CA	2444	G	C8-N9-C4	-5.32	104.27	106.40
1	EA	2585	U	N1-C2-O2	5.32	126.52	122.80
33	FA	1101	A	C5-C6-N6	-5.32	119.45	123.70
1	GA	458	G	N1-C6-O6	5.32	123.09	119.90
1	GA	2181	U	C2-N1-C1'	5.32	124.08	117.70
1	CA	2106	U	C6-N1-C2	-5.32	117.81	121.00
1	AA	2053	G	C4-N9-C1'	5.31	133.41	126.50
1	CA	860	U	O5'-P-OP2	-5.31	100.92	105.70
1	AA	2076	U	O4'-C1'-N1	5.31	112.45	108.20
1	EA	793	A	O5'-P-OP2	-5.31	100.92	105.70
1	EA	814	C	C2-N3-C4	-5.31	117.24	119.90
1	EA	847	U	N3-C2-O2	-5.31	118.48	122.20
33	HA	1101	A	N1-C6-N6	5.31	121.79	118.60
1	AA	1142	A	N3-C4-N9	-5.31	123.15	127.40
33	DA	430	A	N1-C6-N6	5.31	121.79	118.60
33	FA	1493	A	P-O3'-C3'	5.31	126.07	119.70
1	GA	2027	G	C6-C5-N7	-5.31	127.22	130.40
1	GA	2498	C	N3-C4-C5	5.31	124.02	121.90
1	CA	275	C	C6-N1-C2	-5.31	118.18	120.30
1	EA	1407	G	C8-N9-C4	5.31	108.52	106.40
1	GA	783	A	C8-N9-C4	-5.31	103.68	105.80
33	HA	145	G	C5-C6-N1	-5.31	108.85	111.50
1	CA	1157	G	C5-C6-N1	-5.31	108.85	111.50
1	EA	1777	U	N1-C2-N3	5.30	118.08	114.90
33	HA	23	C	N1-C2-O2	5.30	122.08	118.90
1	EA	1936	A	C8-N9-C4	5.30	107.92	105.80
33	FA	319	G	OP2-P-O3'	5.30	116.87	105.20
1	GA	732	C	O5'-P-OP1	-5.30	100.93	105.70
1	CA	1256	G	C8-N9-C4	-5.30	104.28	106.40
1	CA	1263	U	N1-C2-O2	-5.30	119.09	122.80
1	EA	2585	U	P-O3'-C3'	5.30	126.06	119.70
1	EA	2645	G	O4'-C1'-N9	5.30	112.44	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	2694	G	C5-C6-O6	-5.30	125.42	128.60
1	GA	581	C	N3-C4-N4	5.30	121.71	118.00
1	AA	2251	G	N3-C4-N9	-5.30	122.82	126.00
33	FA	1305	G	N1-C6-O6	-5.30	116.72	119.90
1	GA	984	A	C6-C5-N7	-5.30	128.59	132.30
1	CA	132	G	C5-C6-O6	-5.30	125.42	128.60
33	DA	1137	C	N3-C2-O2	-5.30	118.19	121.90
1	GA	876	C	OP1-P-O3'	5.30	116.86	105.20
1	GA	1311	G	N7-C8-N9	5.30	115.75	113.10
50	HR	57	ARG	CB-CG-CD	-5.30	97.83	111.60
1	EA	1142	A	C2-N3-C4	-5.30	107.95	110.60
1	EA	2487	G	C4-C5-N7	5.30	112.92	110.80
33	DA	922	G	C8-N9-C4	-5.29	104.28	106.40
1	EA	752	A	N9-C1'-C2'	5.29	120.88	114.00
27	E0	19	ASP	CB-CG-OD2	5.29	123.06	118.30
1	AA	921	C	C6-N1-C2	5.29	122.42	120.30
1	CA	2465	C	C6-N1-C2	5.29	122.42	120.30
1	EA	451	U	O4'-C1'-N1	5.29	112.43	108.20
1	EA	1730	C	N3-C4-C5	5.29	124.02	121.90
1	AA	2072	C	O5'-P-OP1	-5.29	100.94	105.70
1	EA	1713	A	N9-C4-C5	-5.29	103.68	105.80
1	EA	2579	C	C4-C5-C6	-5.29	114.75	117.40
33	FA	981	U	C6-N1-C2	-5.29	117.83	121.00
1	CA	2290	G	C6-C5-N7	-5.29	127.23	130.40
1	AA	1574	C	C6-N1-C2	-5.29	118.19	120.30
1	CA	2348	U	C5-C4-O4	-5.29	122.73	125.90
1	CA	2433	A	N1-C6-N6	-5.29	115.43	118.60
1	GA	1025	G	N1-C6-O6	-5.29	116.73	119.90
33	HA	972	C	C6-N1-C2	5.29	122.42	120.30
1	EA	124	G	N1-C2-N2	5.29	120.96	116.20
33	HA	1012	A	N7-C8-N9	5.28	116.44	113.80
1	AA	2559	C	OP2-P-O3'	5.28	116.82	105.20
14	CN	71	ARG	NE-CZ-NH1	-5.28	117.66	120.30
33	FA	223	A	O5'-P-OP2	-5.28	100.95	105.70
1	GA	1687	G	N1-C6-O6	-5.28	116.73	119.90
33	BA	468	A	C4-C5-C6	5.28	119.64	117.00
1	EA	1288	G	O4'-C1'-N9	5.28	112.42	108.20
19	ES	19	LEU	CA-CB-CG	5.28	127.44	115.30
1	CA	229	C	N1-C2-O2	5.28	122.07	118.90
1	CA	765	C	N3-C4-C5	5.28	124.01	121.90
33	DA	427	U	O5'-P-OP2	5.28	117.03	110.70
33	DA	1413	A	C8-N9-C4	-5.28	103.69	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	967	U	C5-C4-O4	5.28	129.06	125.90
1	GA	62	U	N3-C2-O2	-5.28	118.51	122.20
1	GA	2103	C	C6-N1-C2	-5.28	118.19	120.30
33	DA	251	G	C5-C6-O6	-5.27	125.44	128.60
1	EA	2030	A	O4'-C1'-N9	5.27	112.42	108.20
33	BA	880	C	C6-N1-C2	5.27	122.41	120.30
44	FL	44	LYS	C-N-CD	5.27	139.47	128.40
1	GA	2038	G	C6-C5-N7	-5.27	127.24	130.40
1	GA	2402	U	C5-C4-O4	5.27	129.06	125.90
1	GA	2575	C	N1-C2-O2	-5.27	115.74	118.90
1	AA	528	A	N1-C6-N6	5.27	121.76	118.60
33	DA	279	A	C5-N7-C8	-5.27	101.26	103.90
1	EA	1201	U	OP2-P-O3'	5.27	116.80	105.20
1	CA	843	G	C8-N9-C4	-5.27	104.29	106.40
1	EA	679	C	C2-N3-C4	-5.27	117.27	119.90
1	AA	1094	U	N3-C4-C5	-5.27	111.44	114.60
1	EA	129	C	N3-C4-C5	5.27	124.01	121.90
33	HA	1334	G	N3-C4-C5	-5.27	125.97	128.60
1	AA	760	G	N3-C2-N2	-5.27	116.21	119.90
1	CA	1355	G	C5-C6-N1	-5.27	108.87	111.50
1	EA	535	G	C2-N3-C4	-5.27	109.27	111.90
32	E5	50	VAL	CG1-CB-CG2	5.27	119.33	110.90
1	AA	2228	G	C4-N9-C1'	5.26	133.34	126.50
1	CA	1786	A	O4'-C1'-N9	5.26	112.41	108.20
1	CA	2250	G	N7-C8-N9	5.26	115.73	113.10
1	EA	2676	C	C6-N1-C2	5.26	122.41	120.30
1	CA	767	U	C5-C4-O4	5.26	129.06	125.90
1	GA	332	A	N1-C6-N6	-5.26	115.44	118.60
1	AA	611	C	OP2-P-O3'	5.26	116.77	105.20
33	BA	328	C	N3-C2-O2	-5.26	118.22	121.90
1	CA	609	A	N1-C6-N6	5.26	121.76	118.60
1	CA	2351	G	C6-C5-N7	-5.26	127.24	130.40
1	EA	1007	C	C6-N1-C2	5.26	122.40	120.30
1	GA	128	C	N1-C2-O2	-5.26	115.74	118.90
1	EA	1130	U	O5'-P-OP1	-5.26	100.97	105.70
1	EA	1422	G	C5-C6-O6	5.26	131.75	128.60
1	AA	2503	A	N1-C6-N6	5.26	121.75	118.60
1	EA	1340	U	O4'-C1'-N1	5.26	112.41	108.20
1	EA	2580	U	C6-N1-C2	-5.26	117.85	121.00
1	CA	168	G	N1-C6-O6	5.25	123.05	119.90
1	CA	377	G	N3-C4-C5	-5.25	125.97	128.60
1	EA	1118	C	N1-C2-O2	-5.25	115.75	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BA	452	A	N1-C6-N6	5.25	121.75	118.60
1	CA	2037	A	C8-N9-C4	-5.25	103.70	105.80
1	CA	1827	U	N3-C2-O2	-5.25	118.52	122.20
1	GA	561	G	N3-C4-N9	-5.25	122.85	126.00
1	GA	738	G	O5'-P-OP2	-5.25	100.97	105.70
1	GA	982	C	N1-C2-O2	5.25	122.05	118.90
1	GA	2304	G	N3-C4-N9	-5.25	122.85	126.00
1	GA	649	G	C8-N9-C4	-5.25	104.30	106.40
1	AA	1726	C	C5-C4-N4	-5.25	116.53	120.20
1	CA	2361	G	O5'-P-OP2	-5.25	100.98	105.70
1	AA	1771	C	OP2-P-O3'	5.25	116.74	105.20
1	GA	195	A	N7-C8-N9	5.25	116.42	113.80
33	HA	1484	C	N1-C2-O2	-5.25	115.75	118.90
1	EA	454	A	OP2-P-O3'	5.25	116.74	105.20
1	EA	1512	C	O5'-P-OP2	5.25	116.99	110.70
1	GA	2893	A	C8-N9-C4	5.25	107.90	105.80
32	A5	53	ARG	C-N-CA	5.24	134.81	121.70
33	BA	1515	G	C6-C5-N7	-5.24	127.25	130.40
1	EA	2202	U	C5-C4-O4	5.24	129.05	125.90
33	HA	382	A	O5'-P-OP2	-5.24	100.98	105.70
1	AA	1779	U	O5'-P-OP1	-5.24	100.98	105.70
12	CL	19	LEU	CA-CB-CG	5.24	127.36	115.30
1	EA	443	A	N9-C4-C5	5.24	107.90	105.80
1	GA	2553	G	C8-N9-C4	-5.24	104.30	106.40
33	DA	1086	U	N1-C2-O2	5.24	126.47	122.80
33	DA	1370	G	N3-C2-N2	-5.24	116.23	119.90
1	EA	565	C	N3-C4-N4	5.24	121.67	118.00
1	EA	1407	G	N1-C6-O6	5.24	123.04	119.90
1	CA	2839	G	O5'-P-OP1	-5.24	100.99	105.70
1	AA	1069	A	OP2-P-O3'	5.24	116.72	105.20
33	BA	522	C	O5'-P-OP2	-5.24	100.99	105.70
33	BA	1530	G	C4-N9-C1'	-5.24	119.69	126.50
33	FA	79	G	N3-C4-C5	-5.24	125.98	128.60
33	FA	206	C	C6-N1-C2	-5.24	118.21	120.30
1	GA	639	U	N3-C2-O2	-5.24	118.53	122.20
1	CA	2109	U	O4'-C1'-N1	5.23	112.39	108.20
1	GA	1293	C	C6-N1-C2	-5.23	118.21	120.30
1	GA	2537	U	C5-C4-O4	5.23	129.04	125.90
1	AA	2606	C	N1-C2-O2	-5.23	115.76	118.90
2	EB	55	U	C6-N1-C2	-5.23	117.86	121.00
1	CA	2286	G	C4-C5-N7	5.23	112.89	110.80
1	EA	647	G	C5-C6-O6	5.23	131.74	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	2440	C	N1-C2-O2	5.23	122.04	118.90
1	EA	941	A	N9-C4-C5	-5.23	103.71	105.80
1	AA	1383	A	C8-N9-C4	5.22	107.89	105.80
1	CA	794	A	C8-N9-C4	5.22	107.89	105.80
33	FA	183	C	C5-C6-N1	5.22	123.61	121.00
1	AA	419	U	N3-C2-O2	-5.22	118.54	122.20
33	BA	1366	C	N3-C2-O2	5.22	125.56	121.90
1	CA	16	C	C6-N1-C2	-5.22	118.21	120.30
1	CA	1779	U	C2-N1-C1'	-5.22	111.43	117.70
1	CA	1963	U	C6-N1-C2	-5.22	117.87	121.00
2	CB	30	C	C6-N1-C2	-5.22	118.21	120.30
33	DA	87	C	N1-C2-O2	5.22	122.03	118.90
1	EA	672	C	C6-N1-C2	-5.22	118.21	120.30
33	FA	536	C	C6-N1-C2	-5.22	118.21	120.30
1	GA	818	G	N9-C4-C5	5.22	107.49	105.40
1	GA	2410	G	N1-C6-O6	5.22	123.03	119.90
1	AA	2557	G	C8-N9-C4	-5.22	104.31	106.40
1	EA	259	G	N9-C4-C5	5.22	107.49	105.40
1	GA	1788	C	N1-C2-O2	-5.22	115.77	118.90
1	AA	1737	G	C4-N9-C1'	5.22	133.28	126.50
1	GA	1251	C	N3-C2-O2	-5.22	118.25	121.90
1	EA	1940	U	C2-N1-C1'	5.21	123.96	117.70
1	GA	1509	A	OP2-P-O3'	5.21	116.67	105.20
1	AA	2712	C	OP1-P-O3'	5.21	116.67	105.20
1	AA	212	G	OP2-P-O3'	5.21	116.67	105.20
1	EA	1180	U	C5-C6-N1	5.21	125.31	122.70
2	GB	119	A	O5'-P-OP2	5.21	116.95	110.70
33	HA	481	G	C4-C5-N7	5.21	112.89	110.80
1	CA	2038	G	C5-C6-O6	-5.21	125.47	128.60
33	BA	1364	U	N1-C2-O2	5.21	126.44	122.80
1	EA	519	U	O5'-P-OP2	-5.21	101.01	105.70
1	EA	1328	A	O5'-P-OP2	-5.21	101.01	105.70
33	FA	890	G	O4'-C1'-N9	5.21	112.37	108.20
1	GA	2211	A	P-O3'-C3'	5.21	125.95	119.70
1	AA	1509	A	P-O3'-C3'	5.21	125.95	119.70
33	BA	1522	U	N3-C2-O2	-5.21	118.56	122.20
1	EA	372	G	N1-C6-O6	5.21	123.02	119.90
1	EA	669	G	C4-C5-N7	-5.21	108.72	110.80
1	EA	2710	C	N1-C2-N3	5.21	122.84	119.20
1	AA	1724	G	C8-N9-C4	-5.21	104.32	106.40
1	AA	1724	G	N7-C8-N9	5.21	115.70	113.10
33	BA	108	G	N7-C8-N9	5.21	115.70	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1238	G	N3-C4-C5	-5.20	126.00	128.60
33	BA	384	G	C5-C6-O6	-5.20	125.48	128.60
1	CA	1142	A	C2-N3-C4	-5.20	108.00	110.60
33	DA	290	C	OP2-P-O3'	5.20	116.65	105.20
33	DA	728	A	N1-C6-N6	-5.20	115.48	118.60
33	BA	328	C	C6-N1-C1'	-5.20	114.56	120.80
1	CA	11	C	C6-N1-C2	5.20	122.38	120.30
1	AA	465	G	OP2-P-O3'	5.20	116.64	105.20
1	CA	834	G	C4-C5-C6	5.20	121.92	118.80
2	CB	53	A	N1-C6-N6	5.20	121.72	118.60
1	GA	375	G	N3-C4-N9	-5.20	122.88	126.00
1	GA	527	C	P-O3'-C3'	5.20	125.94	119.70
1	GA	766	U	OP2-P-O3'	5.20	116.64	105.20
33	BA	1483	A	O5'-P-OP1	-5.20	101.02	105.70
1	EA	992	C	C6-N1-C2	-5.20	118.22	120.30
1	GA	2221	G	C8-N9-C4	-5.20	104.32	106.40
1	GA	1250	G	C5-C6-O6	-5.20	125.48	128.60
1	AA	776	G	C4-C5-C6	5.20	121.92	118.80
1	CA	2338	C	O5'-P-OP1	-5.20	101.02	105.70
1	CA	2455	G	C4-C5-C6	5.20	121.92	118.80
1	GA	548	G	O4'-C1'-N9	5.20	112.36	108.20
33	HA	115	G	N3-C4-C5	-5.20	126.00	128.60
1	AA	1937	A	O4'-C1'-N9	5.19	112.36	108.20
1	EA	2278	A	C8-N9-C4	-5.19	103.72	105.80
1	AA	2106	U	C6-N1-C2	-5.19	117.88	121.00
1	EA	1422	G	N1-C6-O6	-5.19	116.78	119.90
1	EA	2754	U	C6-N1-C2	-5.19	117.88	121.00
33	FA	1373	G	N1-C6-O6	5.19	123.02	119.90
1	AA	540	C	N1-C2-O2	-5.19	115.78	118.90
33	BA	326	G	C5-C6-O6	5.19	131.72	128.60
1	EA	780	G	O5'-P-OP2	-5.19	101.03	105.70
1	EA	972	A	OP1-P-OP2	-5.19	111.81	119.60
33	BA	1317	C	C6-N1-C2	5.19	122.38	120.30
1	EA	776	G	N1-C2-N3	5.19	127.01	123.90
1	GA	1078	U	O4'-C1'-N1	5.19	112.35	108.20
1	EA	520	G	N3-C4-C5	-5.19	126.01	128.60
33	HA	1364	U	N1-C2-O2	5.19	126.43	122.80
1	AA	974	G	C8-N9-C4	-5.18	104.33	106.40
1	AA	2747	G	OP2-P-O3'	5.18	116.60	105.20
1	CA	255	A	O4'-C1'-N9	-5.18	104.05	108.20
1	CA	2313	C	C6-N1-C2	-5.18	118.23	120.30
1	EA	2754	U	N3-C4-O4	5.18	123.03	119.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	HA	776	G	N3-C4-C5	5.18	131.19	128.60
1	AA	192	C	C5-C6-N1	5.18	123.59	121.00
1	CA	984	A	N1-C2-N3	5.18	131.89	129.30
1	AA	776	G	C8-N9-C4	-5.18	104.33	106.40
1	CA	2003	A	N1-C6-N6	-5.18	115.49	118.60
1	EA	515	A	C8-N9-C4	-5.18	103.73	105.80
1	AA	242	G	C8-N9-C4	5.18	108.47	106.40
1	AA	2025	C	C5-C4-N4	-5.18	116.57	120.20
1	EA	1355	G	C5-C6-N1	-5.18	108.91	111.50
1	EA	2040	G	C8-N9-C4	-5.18	104.33	106.40
1	EA	2855	C	C6-N1-C2	-5.18	118.23	120.30
32	A5	108	VAL	CA-CB-CG1	5.18	118.67	110.90
1	CA	2032	G	C5-N7-C8	-5.18	101.71	104.30
1	EA	5	A	C8-N9-C4	-5.18	103.73	105.80
2	EB	104	A	N1-C6-N6	5.18	121.71	118.60
1	AA	2231	U	N3-C2-O2	-5.17	118.58	122.20
33	FA	183	C	C6-N1-C2	-5.17	118.23	120.30
33	HA	70	U	C5-C6-N1	5.17	125.29	122.70
1	CA	468	G	N3-C2-N2	-5.17	116.28	119.90
1	EA	2580	U	C5-C6-N1	5.17	125.29	122.70
1	CA	1970	A	N9-C4-C5	5.17	107.87	105.80
1	EA	1310	G	C8-N9-C4	-5.17	104.33	106.40
1	EA	2440	C	N3-C4-C5	-5.17	119.83	121.90
1	EA	2586	U	C5-C4-O4	-5.17	122.80	125.90
1	EA	2787	C	N3-C2-O2	-5.17	118.28	121.90
1	AA	669	G	N3-C2-N2	-5.17	116.28	119.90
1	AA	1831	G	N3-C4-C5	-5.17	126.02	128.60
1	AA	2560	A	O5'-P-OP2	-5.17	101.05	105.70
33	BA	351	G	N7-C8-N9	5.17	115.68	113.10
33	DA	1201	A	P-O3'-C3'	5.17	125.90	119.70
1	EA	518	G	C4-C5-C6	5.17	121.90	118.80
1	EA	820	A	OP2-P-O3'	5.17	116.57	105.20
33	HA	1087	G	N1-C6-O6	5.17	123.00	119.90
1	AA	1342	A	N1-C6-N6	5.17	121.70	118.60
1	EA	2714	G	C2-N3-C4	-5.17	109.32	111.90
1	EA	578	G	N9-C4-C5	-5.17	103.33	105.40
1	GA	1347	A	O5'-P-OP1	-5.17	101.05	105.70
33	HA	1332	A	O4'-C1'-N9	5.17	112.33	108.20
1	AA	2058	A	OP2-P-O3'	5.16	116.56	105.20
1	CA	748	G	O4'-C1'-N9	5.16	112.33	108.20
1	CA	866	A	N1-C6-N6	5.16	121.70	118.60
1	EA	935	C	N3-C2-O2	5.16	125.51	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	1668	A	O4'-C1'-N9	-5.16	104.07	108.20
1	CA	988	A	N1-C6-N6	5.16	121.70	118.60
1	CA	1955	U	O5'-P-OP1	-5.16	101.05	105.70
1	EA	29	U	OP1-P-O3'	5.16	116.56	105.20
1	EA	835	C	O5'-P-OP2	-5.16	101.06	105.70
1	AA	1658	C	N1-C2-O2	-5.16	115.80	118.90
1	CA	830	G	N1-C6-O6	5.16	123.00	119.90
1	EA	248	G	O5'-P-OP1	5.16	116.89	110.70
1	EA	732	C	C6-N1-C2	-5.16	118.24	120.30
33	FA	339	C	N3-C2-O2	-5.16	118.29	121.90
1	AA	2445	G	N1-C2-N2	5.16	120.84	116.20
1	CA	117	G	O5'-P-OP2	-5.16	101.06	105.70
33	FA	1227	A	N1-C6-N6	5.16	121.69	118.60
1	GA	1032	A	C8-N9-C4	5.16	107.86	105.80
33	BA	1362	A	C4-C5-C6	-5.16	114.42	117.00
1	AA	1653	G	O5'-P-OP2	-5.16	101.06	105.70
1	CA	1913	A	N1-C6-N6	-5.15	115.51	118.60
1	EA	780	G	N9-C4-C5	5.15	107.46	105.40
1	GA	1438	U	N3-C4-O4	5.15	123.01	119.40
1	GA	1606	C	C2-N1-C1'	5.15	124.47	118.80
1	AA	921	C	N3-C2-O2	5.15	125.51	121.90
33	DA	557	G	C4-N9-C1'	5.15	133.20	126.50
1	EA	266	G	O5'-P-OP1	5.15	116.88	110.70
1	EA	2458	G	O5'-P-OP2	-5.15	101.06	105.70
33	DA	62	U	O5'-P-OP2	-5.15	101.06	105.70
1	EA	55	G	C4-C5-N7	-5.15	108.74	110.80
1	EA	2731	G	N3-C4-C5	-5.15	126.03	128.60
33	HA	1486	G	C6-C5-N7	-5.15	127.31	130.40
33	BA	1362	A	C8-N9-C1'	5.15	136.97	127.70
33	DA	177	G	C4-C5-N7	-5.15	108.74	110.80
1	EA	799	G	C2-N3-C4	-5.15	109.33	111.90
1	AA	801	G	N1-C6-O6	-5.15	116.81	119.90
1	AA	1099	G	N3-C4-C5	5.15	131.17	128.60
33	BA	384	G	N1-C6-O6	5.15	122.99	119.90
1	CA	1386	C	N3-C4-C5	-5.15	119.84	121.90
1	CA	2447	G	O4'-C1'-N9	5.15	112.32	108.20
1	EA	1322	A	N1-C6-N6	5.15	121.69	118.60
1	EA	1556	C	N3-C4-N4	-5.15	114.40	118.00
1	EA	1130	U	OP1-P-OP2	5.14	127.32	119.60
1	GA	2307	G	C8-N9-C4	5.14	108.46	106.40
43	HK	49	GLY	N-CA-C	5.14	125.96	113.10
1	AA	2303	G	C8-N9-C4	-5.14	104.34	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	2361	G	OP1-P-OP2	5.14	127.31	119.60
1	AA	2560	A	C8-N9-C4	-5.14	103.74	105.80
33	BA	307	C	C6-N1-C2	5.14	122.36	120.30
1	CA	1997	C	C2-N1-C1'	-5.14	113.14	118.80
1	EA	1730	C	N3-C4-N4	-5.14	114.40	118.00
1	EA	2646	C	C5-C4-N4	-5.14	116.60	120.20
1	GA	901	C	C6-N1-C2	-5.14	118.24	120.30
24	CX	29	LEU	CA-CB-CG	5.14	127.12	115.30
1	AA	1655	A	N1-C6-N6	5.14	121.68	118.60
1	CA	1831	G	N9-C4-C5	5.14	107.46	105.40
33	DA	84	U	C6-N1-C2	-5.14	117.92	121.00
1	EA	2329	U	N3-C2-O2	5.14	125.80	122.20
1	GA	445	C	C6-N1-C2	-5.14	118.24	120.30
1	CA	473	G	O5'-P-OP2	-5.14	101.08	105.70
1	AA	2250	G	C6-C5-N7	-5.14	127.32	130.40
2	AB	53	A	C8-N9-C4	-5.14	103.75	105.80
33	FA	16	A	OP2-P-O3'	5.14	116.50	105.20
33	FA	1145	A	N9-C4-C5	5.14	107.86	105.80
33	HA	1364	U	C2-N1-C1'	5.14	123.86	117.70
33	DA	115	G	P-O3'-C3'	5.13	125.86	119.70
1	AA	557	C	C6-N1-C2	5.13	122.35	120.30
1	CA	843	G	N9-C4-C5	5.13	107.45	105.40
1	EA	1940	U	O5'-P-OP2	-5.13	101.08	105.70
33	HA	1304	G	N7-C8-N9	5.13	115.67	113.10
1	EA	809	G	N3-C4-C5	-5.13	126.03	128.60
1	EA	1373	A	O5'-P-OP2	-5.13	101.08	105.70
1	EA	2061	G	N3-C4-C5	-5.13	126.03	128.60
1	EA	2319	G	N1-C6-O6	5.13	122.98	119.90
1	AA	254	G	O5'-P-OP2	-5.13	101.08	105.70
1	AA	372	G	C8-N9-C1'	5.13	133.67	127.00
33	DA	810	C	O5'-P-OP2	-5.13	101.08	105.70
33	FA	1371	G	C8-N9-C4	-5.13	104.35	106.40
1	GA	191	A	C8-N9-C4	5.13	107.85	105.80
33	HA	772	U	O5'-P-OP1	5.13	116.85	110.70
1	AA	2567	G	C8-N9-C4	-5.13	104.35	106.40
33	BA	35	G	N1-C6-O6	5.13	122.97	119.90
1	EA	201	C	N3-C4-C5	5.13	123.95	121.90
33	BA	438	U	O4'-C1'-N1	5.12	112.30	108.20
1	EA	2232	C	N1-C2-O2	-5.12	115.83	118.90
1	AA	1695	G	N3-C4-C5	-5.12	126.04	128.60
33	BA	70	U	C2-N1-C1'	5.12	123.85	117.70
1	EA	849	A	C2-N3-C4	-5.12	108.04	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	2056	G	O5'-P-OP2	-5.12	101.09	105.70
1	EA	2756	U	O5'-P-OP2	5.12	116.85	110.70
1	GA	421	C	C6-N1-C2	5.12	122.35	120.30
33	HA	541	G	N3-C4-C5	5.12	131.16	128.60
1	AA	445	C	C6-N1-C2	-5.12	118.25	120.30
1	CA	2587	A	N1-C6-N6	5.12	121.67	118.60
1	EA	447	A	C5-C6-N6	-5.12	119.60	123.70
1	EA	1959	G	O5'-P-OP2	-5.12	101.09	105.70
1	EA	2228	G	C6-C5-N7	-5.12	127.33	130.40
33	DA	451	A	P-O3'-C3'	5.12	125.84	119.70
1	EA	2822	G	OP2-P-O3'	5.12	116.47	105.20
55	FW	3	SER	N-CA-CB	-5.12	102.82	110.50
1	EA	2017	U	N3-C4-O4	5.12	122.98	119.40
33	FA	1364	U	C2-N1-C1'	5.12	123.84	117.70
33	FA	1525	G	C8-N9-C4	-5.12	104.35	106.40
1	GA	510	C	N1-C2-O2	5.12	121.97	118.90
1	AA	690	G	N9-C4-C5	5.12	107.45	105.40
33	DA	1526	G	O5'-P-OP1	-5.12	101.10	105.70
1	GA	542	C	C6-N1-C2	-5.12	118.25	120.30
1	GA	783	A	C6-C5-N7	-5.12	128.72	132.30
1	AA	117	G	N3-C4-C5	-5.11	126.04	128.60
1	AA	1626	A	P-O3'-C3'	5.11	125.84	119.70
1	CA	2032	G	C2-N3-C4	-5.11	109.34	111.90
1	GA	1438	U	C5-C4-O4	-5.11	122.83	125.90
1	AA	2544	G	N9-C4-C5	-5.11	103.36	105.40
33	DA	890	G	O4'-C1'-N9	5.11	112.29	108.20
1	EA	738	G	N1-C6-O6	-5.11	116.83	119.90
1	AA	331	C	N3-C2-O2	-5.11	118.32	121.90
1	AA	1298	C	C6-N1-C2	-5.11	118.26	120.30
1	AA	2447	G	C4-C5-N7	5.11	112.84	110.80
1	AA	2547	A	O4'-C1'-N9	5.11	112.29	108.20
2	CB	98	G	N1-C6-O6	-5.11	116.83	119.90
1	CA	528	A	C5-N7-C8	-5.11	101.35	103.90
1	EA	25	U	N3-C4-O4	5.11	122.98	119.40
1	EA	2525	G	OP2-P-O3'	5.11	116.44	105.20
1	EA	2696	U	N1-C2-O2	-5.11	119.22	122.80
1	AA	2608	G	C5-C6-O6	-5.11	125.53	128.60
1	CA	62	U	N3-C2-O2	-5.11	118.62	122.20
1	GA	969	G	C2-N3-C4	-5.11	109.35	111.90
1	CA	1422	G	C4-C5-N7	5.11	112.84	110.80
1	CA	2675	A	OP2-P-O3'	5.11	116.43	105.20
1	EA	379	G	N9-C4-C5	5.11	107.44	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	528	A	C5-C6-N1	-5.11	115.15	117.70
1	EA	2447	G	C8-N9-C1'	-5.11	120.36	127.00
1	EA	2778	A	C8-N9-C4	-5.11	103.76	105.80
33	BA	468	A	C8-N9-C4	-5.10	103.76	105.80
1	AA	331	C	N3-C4-C5	5.10	123.94	121.90
1	AA	587	C	N3-C4-C5	-5.10	119.86	121.90
1	AA	1027	A	OP2-P-O3'	5.10	116.42	105.20
1	AA	2139	U	C2-N1-C1'	5.10	123.82	117.70
1	AA	2441	U	N3-C2-O2	-5.10	118.63	122.20
33	BA	758	C	N1-C2-O2	5.10	121.96	118.90
1	EA	1022	G	C5-C6-O6	-5.10	125.54	128.60
33	FA	16	A	N1-C6-N6	-5.10	115.54	118.60
1	GA	863	A	C8-N9-C4	-5.10	103.76	105.80
1	GA	1073	A	N1-C6-N6	5.10	121.66	118.60
1	GA	2585	U	P-O3'-C3'	5.10	125.82	119.70
1	AA	484	C	C6-N1-C2	5.10	122.34	120.30
1	AA	1534	U	N1-C2-O2	5.10	126.37	122.80
1	EA	2721	A	N9-C4-C5	5.10	107.84	105.80
1	GA	75	G	C6-C5-N7	-5.10	127.34	130.40
1	AA	636	G	C4-C5-N7	5.10	112.84	110.80
1	AA	741	U	OP1-P-O3'	5.10	116.42	105.20
1	AA	2518	A	OP1-P-O3'	5.10	116.42	105.20
33	DA	779	C	C6-N1-C2	-5.10	118.26	120.30
33	DA	821	G	N1-C6-O6	-5.10	116.84	119.90
1	EA	729	G	C4-N9-C1'	5.10	133.13	126.50
1	AA	447	A	C8-N9-C4	-5.10	103.76	105.80
33	DA	328	C	C6-N1-C1'	-5.10	114.68	120.80
1	EA	252	G	OP2-P-O3'	5.10	116.41	105.20
1	EA	2679	A	C6-N1-C2	-5.10	115.54	118.60
1	GA	200	U	C6-N1-C2	-5.10	117.94	121.00
1	EA	2731	G	N3-C4-N9	5.10	129.06	126.00
33	BA	845	A	C8-N9-C4	-5.09	103.76	105.80
33	DA	545	C	C6-N1-C2	-5.09	118.26	120.30
33	DA	902	G	N1-C6-O6	-5.09	116.84	119.90
1	GA	984	A	C5-C6-N1	-5.09	115.15	117.70
1	GA	1095	A	O5'-P-OP1	5.09	116.81	110.70
33	HA	530	G	N7-C8-N9	5.09	115.65	113.10
1	AA	404	A	OP2-P-O3'	5.09	116.40	105.20
1	AA	2719	G	C8-N9-C1'	-5.09	120.38	127.00
1	CA	246	C	OP2-P-O3'	5.09	116.40	105.20
1	CA	1157	G	C2-N3-C4	-5.09	109.35	111.90
33	DA	262	A	N1-C6-N6	-5.09	115.55	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	E2	43	THR	N-CA-C	5.09	124.75	111.00
1	AA	1969	A	N1-C6-N6	-5.09	115.55	118.60
33	BA	351	G	C5-N7-C8	-5.09	101.76	104.30
1	CA	1815	A	N1-C6-N6	-5.09	115.55	118.60
1	AA	2153	C	C5-C6-N1	5.09	123.54	121.00
1	CA	55	G	C8-N9-C4	-5.09	104.36	106.40
1	CA	2222	C	OP2-P-O3'	5.09	116.39	105.20
1	CA	2443	C	N3-C2-O2	-5.09	118.34	121.90
1	EA	965	C	C6-N1-C2	-5.09	118.27	120.30
1	GA	1925	C	C2-N3-C4	5.09	122.44	119.90
33	HA	486	U	N3-C2-O2	-5.09	118.64	122.20
6	GF	15	LEU	CA-CB-CG	-5.08	103.61	115.30
33	HA	1285	A	O4'-C1'-N9	5.08	112.27	108.20
1	AA	14	A	O5'-P-OP1	-5.08	101.12	105.70
1	AA	614	A	O4'-C1'-N9	-5.08	104.13	108.20
1	AA	1322	A	O5'-P-OP2	-5.08	101.12	105.70
33	FA	279	A	N7-C8-N9	5.08	116.34	113.80
1	GA	2307	G	N1-C6-O6	5.08	122.95	119.90
33	DA	701	U	P-O3'-C3'	5.08	125.80	119.70
1	EA	995	C	OP1-P-O3'	5.08	116.38	105.20
1	EA	2523	G	N7-C8-N9	5.08	115.64	113.10
1	GA	2071	A	P-O3'-C3'	5.08	125.80	119.70
33	DA	1178	G	C8-N9-C4	-5.08	104.37	106.40
33	FA	569	C	N3-C2-O2	-5.08	118.34	121.90
1	AA	564	C	C6-N1-C2	-5.08	118.27	120.30
1	AA	1190	G	C4-N9-C1'	-5.08	119.90	126.50
33	BA	702	A	O4'-C1'-N9	-5.08	104.14	108.20
1	CA	1983	G	OP2-P-O3'	5.08	116.37	105.20
33	HA	1362	A	C8-N9-C1'	5.08	136.84	127.70
1	AA	817	C	N3-C2-O2	-5.08	118.35	121.90
1	AA	1165	A	C8-N9-C4	-5.08	103.77	105.80
1	AA	1938	A	N1-C6-N6	-5.08	115.56	118.60
1	AA	2446	G	OP2-P-O3'	5.08	116.37	105.20
1	CA	271	G	OP1-P-O3'	5.08	116.36	105.20
1	CA	1073	A	O5'-P-OP2	5.08	116.79	110.70
2	EB	100	G	N1-C6-O6	5.08	122.94	119.90
1	AA	2867	G	O5'-P-OP1	-5.07	101.14	105.70
1	CA	1458	U	P-O3'-C3'	5.07	125.79	119.70
1	CA	1621	U	OP2-P-O3'	5.07	116.36	105.20
1	EA	1814	G	C5-C6-N1	-5.07	108.96	111.50
33	FA	1222	G	C5-C6-N1	-5.07	108.96	111.50
33	BA	684	U	N3-C2-O2	-5.07	118.65	122.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	FA	971	G	N3-C4-N9	5.07	129.04	126.00
33	FA	971	G	O4'-C1'-N9	5.07	112.26	108.20
1	AA	1532	A	C5-C6-N6	-5.07	119.64	123.70
33	BA	1201	A	P-O3'-C3'	5.07	125.78	119.70
1	EA	2512	C	N1-C2-O2	-5.07	115.86	118.90
33	FA	759	A	OP2-P-O3'	5.07	116.35	105.20
1	GA	528	A	N1-C2-N3	5.07	131.84	129.30
1	AA	635	C	C6-N1-C2	-5.07	118.27	120.30
2	AB	110	C	N3-C2-O2	-5.07	118.35	121.90
33	BA	328	C	C2-N3-C4	5.07	122.43	119.90
1	CA	2105	U	C2-N1-C1'	5.07	123.78	117.70
1	EA	625	G	C5-C6-O6	-5.07	125.56	128.60
1	GA	1005	C	O5'-P-OP2	-5.07	101.14	105.70
1	CA	1190	G	C6-C5-N7	-5.07	127.36	130.40
1	CA	1513	U	C5-C4-O4	5.07	128.94	125.90
1	GA	2152	G	N3-C4-C5	-5.07	126.07	128.60
1	CA	445	C	O5'-P-OP2	-5.06	101.14	105.70
1	EA	1763	G	N3-C4-C5	-5.06	126.07	128.60
1	EA	2023	C	O5'-P-OP2	-5.06	101.14	105.70
1	EA	2061	G	C8-N9-C1'	-5.06	120.42	127.00
1	GA	1063	G	C4-N9-C1'	5.06	133.08	126.50
1	GA	1825	U	O5'-P-OP2	-5.06	101.14	105.70
33	FA	351	G	C8-N9-C4	-5.06	104.38	106.40
1	GA	1022	G	C8-N9-C4	-5.06	104.38	106.40
33	HA	72	A	C8-N9-C4	-5.06	103.78	105.80
1	AA	1262	A	N1-C6-N6	5.06	121.64	118.60
1	AA	2251	G	O5'-P-OP1	-5.06	101.15	105.70
1	AA	2850	A	OP1-P-O3'	5.06	116.33	105.20
1	CA	2862	G	O5'-P-OP2	-5.06	101.15	105.70
1	EA	2510	C	C6-N1-C1'	5.06	126.87	120.80
1	EA	2581	G	N1-C2-N2	-5.06	111.65	116.20
1	GA	657	U	O5'-P-OP2	-5.06	101.15	105.70
1	GA	2599	G	C5-N7-C8	5.06	106.83	104.30
1	AA	2445	G	N3-C2-N2	-5.06	116.36	119.90
33	BA	468	A	C6-C5-N7	-5.06	128.76	132.30
33	DA	481	G	N9-C4-C5	-5.06	103.38	105.40
1	EA	871	U	N1-C2-O2	5.06	126.34	122.80
1	EA	2033	A	O5'-P-OP2	-5.06	101.15	105.70
33	FA	177	G	N3-C4-C5	-5.06	126.07	128.60
1	GA	1795	C	C6-N1-C2	-5.06	118.28	120.30
1	CA	1518	C	OP2-P-O3'	5.06	116.32	105.20
2	EB	100	G	C5-C6-O6	-5.06	125.57	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	1291	C	N1-C2-O2	5.06	121.93	118.90
1	AA	1945	G	C4-N9-C1'	5.05	133.07	126.50
13	AM	70	ASP	CB-CG-OD1	5.05	122.85	118.30
1	CA	704	G	N9-C4-C5	-5.05	103.38	105.40
1	CA	1355	G	N3-C2-N2	-5.05	116.36	119.90
1	EA	1469	A	C5-C6-N6	5.05	127.74	123.70
1	AA	1261	C	O5'-P-OP2	5.05	116.76	110.70
1	EA	336	C	C6-N1-C2	-5.05	118.28	120.30
1	EA	732	C	OP1-P-O3'	5.05	116.32	105.20
1	EA	1290	C	C6-N1-C2	-5.05	118.28	120.30
1	AA	770	G	C5-C6-O6	5.05	131.63	128.60
33	DA	85	U	N3-C2-O2	-5.05	118.66	122.20
1	EA	860	U	O5'-P-OP2	-5.05	101.15	105.70
1	GA	200	U	N3-C2-O2	-5.05	118.67	122.20
1	AA	923	G	N1-C2-N2	-5.05	111.66	116.20
1	AA	2719	G	C4-C5-C6	5.05	121.83	118.80
1	CA	954	G	N3-C2-N2	-5.05	116.37	119.90
1	EA	2561	U	N3-C4-O4	5.05	122.94	119.40
1	GA	142	A	C4-C5-C6	5.05	119.53	117.00
1	GA	2031	A	C8-N9-C4	-5.05	103.78	105.80
1	EA	910	A	O5'-P-OP2	-5.05	101.16	105.70
1	EA	1983	G	N1-C6-O6	-5.05	116.87	119.90
33	FA	903	G	N1-C6-O6	5.05	122.93	119.90
1	AA	455	C	C6-N1-C2	-5.05	118.28	120.30
1	AA	2578	G	O5'-P-OP1	-5.05	101.16	105.70
1	AA	2640	G	OP2-P-O3'	5.05	116.30	105.20
33	BA	319	G	C8-N9-C1'	5.05	133.56	127.00
1	EA	197	A	C5-C6-N6	-5.05	119.66	123.70
1	EA	1061	U	N3-C2-O2	-5.05	118.67	122.20
1	GA	2067	G	N9-C4-C5	5.05	107.42	105.40
1	GA	249	C	C5-C4-N4	-5.04	116.67	120.20
1	AA	578	G	N3-C4-N9	5.04	129.03	126.00
1	AA	750	A	O5'-P-OP2	5.04	116.75	110.70
1	CA	2719	G	C4-N9-C1'	5.04	133.06	126.50
1	EA	801	G	OP2-P-O3'	5.04	116.29	105.20
1	EA	1224	U	C2-N1-C1'	-5.04	111.65	117.70
1	GA	195	A	C5-N7-C8	-5.04	101.38	103.90
33	HA	779	C	C6-N1-C2	-5.04	118.28	120.30
1	AA	16	C	C6-N1-C2	5.04	122.32	120.30
1	EA	204	A	C8-N9-C4	5.04	107.82	105.80
33	DA	1370	G	C8-N9-C4	-5.04	104.38	106.40
1	AA	1989	G	C5-C6-O6	5.04	131.62	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BA	108	G	C4-C5-N7	5.04	112.82	110.80
1	EA	665	U	N3-C2-O2	5.04	125.73	122.20
1	GA	1088	A	P-O3'-C3'	5.04	125.75	119.70
1	AA	792	A	C5-N7-C8	-5.04	101.38	103.90
1	AA	931	U	C6-N1-C2	-5.04	117.98	121.00
1	AA	2250	G	O5'-P-OP2	-5.04	101.17	105.70
1	CA	2583	G	C6-C5-N7	-5.04	127.38	130.40
1	EA	1507	C	C6-N1-C2	-5.04	118.29	120.30
1	GA	639	U	C5-C4-O4	5.04	128.92	125.90
1	AA	466	A	C6-C5-N7	-5.03	128.78	132.30
1	AA	2585	U	C6-N1-C2	-5.03	117.98	121.00
2	EB	101	A	C2-N3-C4	-5.03	108.08	110.60
1	GA	2140	G	C5'-C4'-O4'	5.03	115.14	109.10
33	HA	1332	A	N9-C1'-C2'	5.03	120.54	114.00
1	AA	75	G	OP2-P-O3'	5.03	116.26	105.20
1	AA	995	C	O4'-C1'-N1	-5.03	104.18	108.20
1	EA	1565	C	N1-C2-O2	5.03	121.92	118.90
33	FA	1519	A	N1-C6-N6	-5.03	115.58	118.60
33	DA	1530	G	O4'-C1'-N9	5.03	112.22	108.20
1	EA	1132	U	C5-C6-N1	5.03	125.21	122.70
33	HA	1087	G	N1-C2-N3	5.03	126.92	123.90
1	EA	2606	C	C2-N1-C1'	-5.02	113.27	118.80
24	CX	63	ILE	CB-CA-C	-5.02	101.55	111.60
1	EA	613	A	N7-C8-N9	5.02	116.31	113.80
33	HA	947	G	C5-C6-O6	-5.02	125.59	128.60
1	CA	1407	G	N1-C6-O6	5.02	122.91	119.90
33	HA	1322	C	N3-C2-O2	-5.02	118.39	121.90
1	AA	197	A	N1-C6-N6	5.02	121.61	118.60
1	AA	1189	A	C2-N3-C4	-5.02	108.09	110.60
1	CA	404	A	OP2-P-O3'	5.02	116.24	105.20
1	EA	834	G	C5-C6-N1	-5.02	108.99	111.50
1	EA	907	G	OP2-P-O3'	5.02	116.24	105.20
1	EA	1263	U	C5-C4-O4	5.02	128.91	125.90
32	E5	92	ALA	N-CA-C	5.02	124.55	111.00
1	GA	1989	G	N1-C6-O6	-5.02	116.89	119.90
1	AA	1796	U	OP2-P-O3'	5.02	116.24	105.20
1	CA	2437	G	C6-C5-N7	-5.02	127.39	130.40
2	CB	98	G	C2-N3-C4	-5.02	109.39	111.90
1	EA	1403	A	N1-C6-N6	5.02	121.61	118.60
1	EA	1419	A	O4'-C1'-N9	5.02	112.21	108.20
33	FA	946	A	O5'-P-OP2	5.02	116.72	110.70
33	DA	503	C	C6-N1-C2	-5.02	118.29	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GA	1666	G	C5-C6-O6	-5.02	125.59	128.60
1	AA	2358	A	N9-C4-C5	5.01	107.81	105.80
1	AA	2447	G	N3-C2-N2	-5.01	116.39	119.90
33	BA	495	A	N9-C4-C5	5.01	107.81	105.80
1	EA	805	G	OP2-P-O3'	5.01	116.23	105.20
1	EA	1245	G	N1-C2-N2	-5.01	111.69	116.20
1	EA	1694	C	O5'-P-OP2	5.01	116.72	110.70
20	ET	7	LEU	CB-CG-CD2	-5.01	102.48	111.00
1	GA	404	A	C6-C5-N7	-5.01	128.79	132.30
1	AA	192	C	C6-N1-C2	-5.01	118.30	120.30
1	EA	404	A	OP2-P-O3'	5.01	116.23	105.20
1	EA	793	A	N1-C2-N3	5.01	131.81	129.30
1	AA	2508	G	N1-C6-O6	5.01	122.91	119.90
1	CA	725	G	C6-C5-N7	-5.01	127.39	130.40
1	CA	2060	A	N1-C6-N6	-5.01	115.59	118.60
33	DA	1178	G	N3-C4-C5	-5.01	126.09	128.60
1	EA	518	G	N3-C4-C5	-5.01	126.09	128.60
1	EA	1225	G	O5'-P-OP1	-5.01	101.19	105.70
1	EA	1252	G	C8-N9-C4	-5.01	104.39	106.40
1	EA	1597	A	OP1-P-O3'	5.01	116.22	105.20
1	GA	1247	A	P-O3'-C3'	5.01	125.71	119.70
1	GA	2795	C	C6-N1-C2	-5.01	118.30	120.30
33	BA	1370	G	C5-C6-N1	-5.01	109.00	111.50
1	CA	570	G	C5-C6-N1	-5.01	109.00	111.50
1	CA	805	G	C6-C5-N7	-5.01	127.39	130.40
1	CA	1478	G	N1-C6-O6	5.01	122.91	119.90
1	CA	2607	G	C8-N9-C4	-5.01	104.40	106.40
33	DA	406	G	N3-C4-N9	5.01	129.00	126.00
1	EA	413	C	O5'-P-OP1	-5.01	101.19	105.70
1	EA	821	A	O5'-P-OP1	5.01	116.71	110.70
1	EA	2864	G	O5'-P-OP2	-5.01	101.19	105.70
33	FA	1202	U	O5'-P-OP1	-5.01	101.19	105.70
1	CA	196	A	O4'-C1'-N9	5.01	112.20	108.20
1	CA	1825	U	N1-C2-O2	-5.01	119.30	122.80
1	EA	374	A	C8-N9-C4	5.01	107.80	105.80
33	DA	34	C	N1-C2-O2	-5.00	115.90	118.90
1	EA	808	G	OP1-P-OP2	5.00	127.11	119.60
1	GA	2503	A	C2-N3-C4	5.00	113.10	110.60
1	AA	2252	G	N1-C6-O6	5.00	122.90	119.90
1	EA	187	G	N3-C4-C5	-5.00	126.10	128.60
1	EA	268	C	N1-C2-O2	-5.00	115.90	118.90
1	EA	1694	C	N3-C2-O2	-5.00	118.40	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	FA	947	G	O5'-P-OP2	5.00	116.70	110.70
1	GA	1142	A	C5-N7-C8	-5.00	101.40	103.90
1	GA	1180	U	N3-C2-O2	-5.00	118.70	122.20
1	GA	2067	G	C8-N9-C4	-5.00	104.40	106.40
1	CA	948	C	OP2-P-O3'	5.00	116.20	105.20
1	EA	1002	G	O5'-P-OP1	-5.00	101.20	105.70
1	EA	2584	U	N1-C2-O2	-5.00	119.30	122.80

There are no chirality outliers.

All (23) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
32	A5	130	PRO	Peptide
32	A5	134	GLU	Peptide
44	BL	23	ALA	Peptide
54	BV	218	TRP	Peptide
54	BV	304	ASP	Peptide
3	CC	139	THR	Peptide
4	CD	10	GLY	Peptide
4	CD	9	VAL	Peptide
44	DL	23	ALA	Peptide
54	DV	218	TRP	Peptide
54	DV	304	ASP	Peptide
3	EC	139	THR	Peptide
4	ED	10	GLY	Peptide
41	FI	41	ARG	Peptide
44	FL	23	ALA	Peptide
54	FV	218	TRP	Peptide
54	FV	304	ASP	Peptide
3	GC	139	THR	Peptide
4	GD	10	GLY	Peptide
44	HL	23	ALA	Peptide
54	HV	218	TRP	Peptide
54	HV	304	ASP	Peptide
54	HV	588	SER	Peptide

5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit,

and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	61274	0	30818	1057	0
1	CA	61274	0	30819	919	0
1	EA	61274	0	30819	835	0
1	GA	61274	0	30819	917	3
2	AB	2529	0	1281	36	0
2	CB	2529	0	1281	34	0
2	EB	2529	0	1281	35	0
2	GB	2529	0	1281	37	0
3	AC	2082	0	2157	67	0
3	CC	2082	0	2157	68	0
3	EC	2082	0	2157	65	0
3	GC	2082	0	2157	57	0
4	AD	1565	0	1616	78	0
4	CD	1565	0	1616	75	0
4	ED	1565	0	1616	72	0
4	GD	1565	0	1616	77	0
5	AE	1552	0	1619	63	0
5	CE	1552	0	1619	34	0
5	EE	1552	0	1619	42	0
5	GE	1552	0	1619	56	0
6	AF	1410	0	1447	133	0
6	CF	1410	0	1447	53	0
6	EF	1410	0	1447	60	0
6	GF	1410	0	1447	92	1
7	AG	1323	0	1374	65	0
7	CG	1323	0	1374	65	0
7	EG	1323	0	1374	48	0
7	GG	1323	0	1374	58	0
8	AH	384	0	405	12	0
8	CH	384	0	405	18	0
8	EH	384	0	405	15	0
8	GH	384	0	405	11	0
9	AI	1032	0	1088	70	0
9	CI	1032	0	1088	62	0
9	EI	1032	0	1088	48	0
9	GI	1032	0	1088	82	0
10	AJ	1129	0	1162	49	0
10	CJ	1129	0	1162	58	0
10	EJ	1129	0	1162	76	0
10	GJ	1129	0	1162	57	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	AK	938	0	1012	40	0
11	CK	938	0	1012	57	0
11	EK	938	0	1012	49	0
11	GK	938	0	1012	42	0
12	AL	1045	0	1117	51	0
12	CL	1045	0	1117	38	0
12	EL	1045	0	1117	35	0
12	GL	1045	0	1117	50	0
13	AM	1074	0	1157	29	0
13	CM	1074	0	1157	33	0
13	EM	1074	0	1157	29	0
13	GM	1074	0	1157	24	0
14	AN	960	0	1000	35	0
14	CN	960	0	1000	44	0
14	EN	960	0	1000	33	0
14	GN	960	0	1000	36	0
15	AO	892	0	923	41	0
15	CO	892	0	923	32	0
15	EO	892	0	923	21	0
15	GO	892	0	923	29	0
16	AP	917	0	965	63	0
16	CP	917	0	965	58	0
16	EP	917	0	965	52	0
16	GP	917	0	965	49	0
17	AQ	947	0	1022	53	0
17	CQ	947	0	1022	56	0
17	EQ	947	0	1022	58	0
17	GQ	947	0	1022	56	0
18	AR	816	0	839	41	0
18	CR	816	0	839	49	0
18	ER	816	0	839	46	0
18	GR	816	0	839	34	0
19	AS	857	0	922	21	0
19	CS	857	0	922	27	0
19	ES	857	0	922	26	0
19	GS	857	0	922	30	0
20	AT	738	0	807	51	0
20	CT	738	0	807	54	0
20	ET	738	0	807	34	0
20	GT	738	0	807	47	0
21	AU	779	0	834	31	0
21	CU	779	0	834	19	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	EU	779	0	834	28	0
21	GU	779	0	834	27	1
22	AV	753	0	780	10	0
22	CV	753	0	780	16	0
22	EV	753	0	780	16	0
22	GV	753	0	780	25	0
23	AW	596	0	610	83	0
23	CW	596	0	610	78	0
23	EW	596	0	610	100	0
23	GW	596	0	610	85	0
24	AX	625	0	655	21	0
24	CX	625	0	655	20	0
24	EX	625	0	655	26	0
24	GX	625	0	655	24	0
25	AY	509	0	543	12	0
25	CY	509	0	543	16	0
25	EY	509	0	543	17	0
25	GY	509	0	543	11	0
26	AZ	449	0	491	6	0
26	CZ	449	0	491	11	0
26	EZ	449	0	491	15	0
26	GZ	449	0	491	14	0
27	A0	444	0	461	20	0
27	C0	444	0	461	15	0
27	E0	444	0	461	6	0
27	G0	444	0	461	12	0
28	A1	409	0	440	18	0
28	C1	409	0	440	23	0
28	E1	409	0	440	14	0
28	G1	409	0	440	13	0
29	A2	377	0	418	12	0
29	C2	377	0	418	9	0
29	E2	377	0	418	15	0
29	G2	377	0	418	8	0
30	A3	504	0	574	20	0
30	C3	504	0	574	16	0
30	E3	504	0	574	14	0
30	G3	504	0	574	21	0
31	A4	302	0	340	14	0
31	C4	302	0	340	17	0
31	E4	302	0	340	14	0
31	G4	302	0	340	13	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	A5	1117	0	1155	135	0
32	E5	1092	0	1134	122	0
33	BA	32895	0	16553	571	0
33	DA	32895	0	16553	534	0
33	FA	32895	0	16553	435	3
33	HA	32895	0	16553	430	0
34	BB	1704	0	1732	67	0
34	DB	1704	0	1732	87	0
34	FB	1704	0	1732	79	0
34	HB	1704	0	1732	72	0
35	BC	1624	0	1696	52	0
35	DC	1624	0	1696	40	0
35	FC	1624	0	1696	38	0
35	HC	1624	0	1696	50	0
36	BD	1643	0	1707	80	0
36	DD	1643	0	1707	83	0
36	FD	1643	0	1707	73	0
36	HD	1643	0	1707	72	0
37	BE	1105	0	1148	61	0
37	DE	1105	0	1148	33	0
37	FE	1105	0	1148	50	0
37	HE	1105	0	1148	37	0
38	BF	817	0	808	51	0
38	DF	817	0	808	28	0
38	FF	817	0	808	28	0
38	HF	817	0	808	25	0
39	BG	1181	0	1238	25	0
39	DG	1181	0	1238	31	0
39	FG	1181	0	1238	35	0
39	HG	1181	0	1238	38	0
40	BH	979	0	1031	50	0
40	DH	979	0	1031	28	0
40	FH	979	0	1031	34	0
40	HH	979	0	1031	28	0
41	BI	1022	0	1070	58	0
41	DI	1022	0	1070	53	0
41	FI	1022	0	1070	44	0
41	HI	1022	0	1070	59	0
42	BJ	786	0	828	26	0
42	DJ	786	0	828	34	0
42	FJ	786	0	828	43	0
42	HJ	786	0	828	34	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	BK	877	0	887	75	0
43	DK	877	0	887	45	0
43	FK	877	0	887	38	0
43	HK	877	0	887	75	0
44	BL	955	0	1016	55	0
44	DL	955	0	1016	52	0
44	FL	955	0	1016	51	0
44	HL	955	0	1016	39	0
45	BM	883	0	941	26	0
45	DM	883	0	941	25	0
45	FM	883	0	941	34	0
45	HM	883	0	941	53	0
46	BN	774	0	824	32	0
46	DN	774	0	824	21	0
46	FN	774	0	824	30	0
46	HN	774	0	824	29	0
47	BO	714	0	734	18	0
47	DO	714	0	734	13	0
47	FO	714	0	734	17	0
47	HO	714	0	734	21	0
48	BP	649	0	666	29	0
48	DP	649	0	666	25	0
48	FP	649	0	666	18	0
48	HP	649	0	666	19	0
49	BQ	648	0	691	19	0
49	DQ	648	0	691	21	0
49	FQ	648	0	691	16	0
49	HQ	648	0	691	21	0
50	BR	455	0	478	19	0
50	DR	455	0	478	16	0
50	FR	455	0	478	16	0
50	HR	455	0	478	15	0
51	BS	637	0	665	23	0
51	DS	637	0	665	17	0
51	FS	637	0	665	30	0
51	HS	637	0	665	21	0
52	BT	665	0	714	30	0
52	DT	665	0	714	26	0
52	FT	665	0	714	30	0
52	HT	665	0	714	19	0
53	BU	425	0	449	40	0
53	DU	425	0	449	28	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	FU	425	0	449	24	0
53	HU	425	0	449	36	0
54	BV	5319	0	5228	105	0
54	DV	5319	0	5228	113	0
54	FV	5319	0	5229	111	0
54	HV	5319	0	5227	145	0
55	BW	48	0	41	7	0
55	DW	48	0	41	8	0
55	FW	48	0	39	9	0
56	A3	1	0	0	0	0
56	AA	130	0	0	0	0
56	AB	4	0	0	0	0
56	AC	3	0	0	0	0
56	AD	1	0	0	0	0
56	AE	1	0	0	0	0
56	AT	1	0	0	0	0
56	BA	40	0	0	0	0
56	BE	1	0	0	0	0
56	BL	1	0	0	0	0
56	BU	1	0	0	0	0
56	BV	1	0	0	0	0
56	C4	1	0	0	0	0
56	CA	134	0	0	0	0
56	CB	4	0	0	0	0
56	CD	1	0	0	0	0
56	CE	1	0	0	0	0
56	DA	42	0	0	0	0
56	DU	1	0	0	0	0
56	DV	1	0	0	0	0
56	EA	133	0	0	0	0
56	EB	4	0	0	0	0
56	EC	1	0	0	0	0
56	ED	2	0	0	0	0
56	EQ	1	0	0	0	0
56	FA	41	0	0	0	0
56	FE	1	0	0	0	0
56	FU	1	0	0	0	0
56	FV	1	0	0	0	0
56	GA	134	0	0	0	0
56	GB	4	0	0	0	0
56	GC	1	0	0	0	0
56	GL	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	GS	1	0	0	0	0
56	HA	40	0	0	0	0
56	HC	1	0	0	0	0
56	HE	1	0	0	0	0
56	HT	1	0	0	0	0
56	HV	1	0	0	0	0
57	A4	1	0	0	0	0
57	C4	1	0	0	0	0
57	E4	1	0	0	0	0
57	G4	1	0	0	0	0
58	BV	32	0	14	2	0
58	DV	32	0	14	1	0
58	FV	32	0	14	5	0
58	HV	32	0	14	1	0
59	A0	1	0	0	0	0
59	A3	1	0	0	0	0
59	A4	2	0	0	0	0
59	AA	608	0	0	111	0
59	AB	19	0	0	1	0
59	AC	10	0	0	0	0
59	AD	3	0	0	0	0
59	AE	1	0	0	0	0
59	AJ	1	0	0	1	0
59	AL	7	0	0	1	0
59	AN	4	0	0	0	0
59	AP	1	0	0	0	0
59	AQ	1	0	0	0	0
59	AS	1	0	0	0	0
59	AU	1	0	0	0	0
59	BA	197	0	0	36	0
59	BC	1	0	0	0	0
59	BD	1	0	0	0	0
59	BI	1	0	0	0	0
59	BK	1	0	0	0	0
59	BN	3	0	0	0	0
59	BT	2	0	0	0	0
59	BU	1	0	0	0	0
59	BV	1	0	0	1	0
59	C2	1	0	0	0	0
59	C3	1	0	0	0	0
59	C4	2	0	0	0	0
59	CA	604	0	0	104	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	CB	20	0	0	2	0
59	CC	11	0	0	4	0
59	CD	3	0	0	0	0
59	CE	1	0	0	0	0
59	CF	1	0	0	0	0
59	CJ	3	0	0	2	0
59	CL	6	0	0	1	0
59	CN	4	0	0	0	0
59	CS	1	0	0	0	0
59	CT	2	0	0	0	0
59	DA	193	0	0	32	0
59	DC	1	0	0	0	0
59	DE	2	0	0	0	0
59	DG	1	0	0	0	0
59	DK	1	0	0	0	0
59	DL	1	0	0	0	0
59	DN	6	0	0	0	0
59	DQ	1	0	0	0	0
59	DT	1	0	0	1	0
59	DU	1	0	0	0	0
59	DV	1	0	0	1	0
59	E0	2	0	0	0	0
59	E3	2	0	0	0	0
59	E4	1	0	0	0	0
59	EA	617	0	0	88	0
59	EB	20	0	0	1	0
59	EC	8	0	0	0	0
59	ED	1	0	0	0	0
59	EL	4	0	0	0	0
59	EN	2	0	0	0	0
59	ER	1	0	0	0	0
59	ET	1	0	0	0	0
59	EU	1	0	0	0	0
59	FA	198	0	0	21	0
59	FE	1	0	0	0	0
59	FK	1	0	0	0	0
59	FN	3	0	0	0	0
59	FQ	1	0	0	0	0
59	FT	4	0	0	1	0
59	FV	1	0	0	1	0
59	G2	2	0	0	0	0
59	G3	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	G4	1	0	0	0	0
59	GA	607	0	0	87	0
59	GB	19	0	0	1	0
59	GC	9	0	0	2	0
59	GD	4	0	0	0	0
59	GE	2	0	0	0	0
59	GL	4	0	0	1	0
59	GN	3	0	0	0	0
59	GQ	1	0	0	0	0
59	GR	2	0	0	0	0
59	GS	1	0	0	0	0
59	GT	1	0	0	0	0
59	GU	2	0	0	0	0
59	GV	1	0	0	1	0
59	HA	197	0	0	33	0
59	HD	1	0	0	0	0
59	HE	3	0	0	0	0
59	HN	5	0	0	0	0
59	HT	1	0	0	0	0
59	HU	1	0	0	0	0
59	HV	1	0	0	1	0
All	All	590573	0	402393	12569	4

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 13.

All (12569) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:117:LEU:CD2	32:A5:120:ALA:HA	1.56	1.35
32:A5:24:SER:CB	32:A5:116:GLU:HG2	1.59	1.32
32:A5:24:SER:O	32:A5:116:GLU:HB3	1.37	1.24
32:E5:117:LEU:CD2	32:E5:120:ALA:HA	1.70	1.20
32:E5:24:SER:CB	32:E5:116:GLU:HG2	1.75	1.16
32:E5:24:SER:HB2	32:E5:116:GLU:HG2	1.08	1.08
32:E5:117:LEU:HD22	32:E5:120:ALA:HA	1.08	1.07
32:E5:24:SER:O	32:E5:116:GLU:HB3	1.54	1.07
32:A5:117:LEU:HD22	32:A5:120:ALA:HA	1.08	1.05
32:A5:24:SER:HB2	32:A5:116:GLU:CG	1.87	1.03
1:GA:1154:G:OP2	17:GQ:57:ARG:NH1	1.96	0.98
33:FA:411:A:OP1	36:FD:26:ARG:NH2	1.97	0.97
43:FK:126:LYS:O	53:FU:34:ARG:NH1	1.97	0.96
1:AA:1332:G:OP1	59:AA:3752:HOH:O	1.84	0.95

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1818:U:OP2	3:EC:155:ARG:NH1	1.98	0.95
1:GA:254:G:N7	30:G3:4:LYS:NZ	2.14	0.95
1:CA:1820:U:OP1	3:CC:176:ARG:NH2	2.00	0.95
9:AI:89:SER:OG	9:AI:135:MET:SD	2.26	0.94
1:EA:996:A:OP2	17:EQ:91:ARG:NH2	2.01	0.94
1:AA:1670:C:OP2	59:AA:3715:HOH:O	1.85	0.94
54:HV:55:GLN:NE2	54:HV:471:ASP:OD2	2.01	0.94
1:EA:2499:C:OP2	59:EA:3681:HOH:O	1.85	0.94
32:A5:24:SER:CB	32:A5:116:GLU:CG	2.43	0.93
1:EA:2503:A:OP1	59:EA:3667:HOH:O	1.87	0.93
32:E5:26:VAL:HG21	32:E5:115:GLY:H	1.34	0.93
32:A5:129:LEU:O	32:A5:131:THR:N	2.03	0.92
1:AA:1669:A:OP2	59:AA:3715:HOH:O	1.86	0.92
32:E5:103:ASN:ND2	32:E5:107:GLU:O	2.03	0.92
32:A5:71:CYS:HB3	32:A5:117:LEU:HD12	1.52	0.91
1:GA:996:A:OP2	17:GQ:91:ARG:NH2	2.03	0.91
32:E5:26:VAL:CG2	32:E5:115:GLY:H	1.82	0.91
32:A5:24:SER:O	32:A5:116:GLU:CB	2.18	0.91
32:A5:117:LEU:CD2	32:A5:120:ALA:CA	2.47	0.91
1:EA:1024:G:OP2	59:EA:3705:HOH:O	1.88	0.91
33:DA:547:A:OP1	59:DA:1727:HOH:O	1.90	0.90
32:A5:24:SER:HB2	32:A5:116:GLU:HG2	0.91	0.90
1:EA:2428:G:OP1	59:EA:3696:HOH:O	1.88	0.90
1:CA:2720:U:OP1	16:CP:52:ARG:NH2	2.04	0.90
43:DK:14:LYS:O	39:HG:130:ASN:ND2	2.04	0.90
34:BB:119:GLN:OE1	34:BB:136:ARG:NH2	2.04	0.90
1:EA:2025:C:OP2	59:EA:3474:HOH:O	1.89	0.90
1:CA:973:A:OP2	18:CR:81:LYS:NZ	2.04	0.90
1:AA:1606:C:N4	59:AA:3409:HOH:O	2.04	0.90
36:BD:58:LYS:NZ	36:BD:59:GLN:OE1	2.06	0.89
39:FG:68:ASN:OD1	39:FG:130:ASN:ND2	2.06	0.89
41:FI:57:MET:SD	41:FI:58:VAL:N	2.46	0.89
32:A5:71:CYS:HA	32:A5:117:LEU:CD1	2.02	0.89
33:FA:510:A:OP2	59:FA:1724:HOH:O	1.90	0.89
1:CA:996:A:OP2	17:CQ:91:ARG:NH2	2.07	0.88
6:AF:125:GLY:O	6:AF:157:THR:OG1	1.89	0.88
1:AA:2499:C:OP2	59:AA:3676:HOH:O	1.92	0.88
1:AA:2298:A:OP1	6:AF:70:ARG:NH2	2.06	0.88
32:E5:26:VAL:HG21	32:E5:115:GLY:N	1.89	0.88
1:GA:1172:C:N4	1:GA:1177:G:O6	2.06	0.88
33:FA:181:A:N7	59:FA:1876:HOH:O	2.06	0.88
1:EA:1153:C:OP2	59:EA:3358:HOH:O	1.91	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1309:G:OP1	45:BM:87:ARG:NH1	2.07	0.88
1:EA:1669:A:OP2	59:EA:3719:HOH:O	1.90	0.87
1:GA:827:U:OP1	59:GA:3341:HOH:O	1.92	0.87
1:AA:1417:C:HO2'	1:AA:1587:G:HO2'	1.10	0.87
32:E5:30:SER:O	32:E5:31:ARG:HB2	1.72	0.87
1:CA:912:C:OP1	13:CM:8:LYS:NZ	2.08	0.87
1:AA:1456:G:OP2	59:AA:3415:HOH:O	1.93	0.87
1:GA:2448:A:OP2	59:GA:3678:HOH:O	1.91	0.87
1:CA:1380:G:OP2	59:CA:3741:HOH:O	1.91	0.86
32:A5:117:LEU:HD22	32:A5:120:ALA:CA	2.00	0.86
3:CC:68:ARG:NH2	3:CC:126:GLY:O	2.08	0.86
33:BA:1505:G:N1	59:BA:1867:HOH:O	2.07	0.86
43:HK:127:ARG:O	53:HU:34:ARG:NH1	2.08	0.86
1:EA:1025:G:O2'	59:EA:3706:HOH:O	1.93	0.86
1:CA:2499:C:OP2	59:CA:3676:HOH:O	1.93	0.86
33:HA:946:A:HO2'	33:HA:1333:A:HO2'	1.10	0.86
41:FI:42:GLU:O	41:FI:44:ALA:N	2.08	0.86
1:AA:1025:G:O2'	59:AA:3701:HOH:O	1.94	0.86
10:GJ:4:PHE:N	10:GJ:44:TYR:OH	2.09	0.86
1:AA:954:G:OP2	13:AM:16:ARG:NH2	2.09	0.86
1:EA:783:A:OP2	59:EA:3314:HOH:O	1.92	0.86
1:AA:558:U:OP1	10:AJ:111:LYS:NZ	2.07	0.86
54:FV:92:HIS:O	54:FV:122:GLN:NE2	2.09	0.86
33:HA:770:C:N4	59:HA:1755:HOH:O	2.09	0.86
1:GA:973:A:OP2	18:GR:81:LYS:NZ	2.08	0.86
36:DD:100:ASN:OD1	36:DD:111:ARG:NH1	2.09	0.86
32:A5:33:VAL:N	32:A5:36:ASP:OD2	2.09	0.86
1:AA:2574:G:OP1	59:AA:3703:HOH:O	1.92	0.85
1:CA:1358:G:N7	59:CA:3401:HOH:O	2.08	0.85
33:DA:823:C:HO2'	40:DH:2:SER:N	1.75	0.85
1:AA:1307:A:OP2	59:AA:3409:HOH:O	1.94	0.85
1:AA:2204:G:OP2	3:AC:146:LYS:NZ	2.08	0.85
1:CA:31:C:OP1	59:CA:3694:HOH:O	1.94	0.85
1:CA:1604:C:OP2	59:CA:3407:HOH:O	1.94	0.85
54:DV:219:HIS:O	54:DV:222:LEU:N	2.10	0.85
33:BA:978:A:OP2	33:BA:1362:A:N6	2.08	0.85
1:GA:783:A:OP2	59:GA:3313:HOH:O	1.93	0.85
1:AA:818:G:OP2	59:AA:3571:HOH:O	1.94	0.85
1:AA:923:G:H1'	23:AW:23:LYS:HD3	1.57	0.85
1:GA:1774:C:OP1	59:GA:3441:HOH:O	1.93	0.85
1:EA:1774:C:OP1	59:EA:3446:HOH:O	1.93	0.85
11:CK:78:ARG:NH1	16:CP:70:GLU:OE2	2.10	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FL:75:GLN:O	44:FL:77:HIS:N	2.10	0.85
33:DA:978:A:HO2'	33:DA:1322:C:H5	1.25	0.85
32:A5:30:SER:O	32:A5:31:ARG:HB2	1.74	0.85
1:AA:996:A:OP2	17:AQ:91:ARG:NH2	2.10	0.85
1:AA:576:U:OP1	59:AA:3663:HOH:O	1.94	0.85
1:GA:2499:C:OP2	59:GA:3678:HOH:O	1.94	0.84
1:EA:2430:A:O5'	59:EA:3343:HOH:O	1.93	0.84
1:GA:1253:A:N7	59:GA:3330:HOH:O	2.11	0.84
34:HB:57:ASN:ND2	34:HB:219:THR:O	2.11	0.84
43:BK:127:ARG:O	53:BU:34:ARG:NH1	2.11	0.84
1:GA:945:A:OP1	59:GA:3346:HOH:O	1.96	0.83
54:HV:526:GLU:O	54:HV:528:GLY:N	2.09	0.83
33:BA:1504:G:N3	59:BA:1867:HOH:O	2.10	0.83
32:E5:26:VAL:HG11	32:E5:77:VAL:CG1	2.07	0.83
33:FA:195:A:OP1	52:FT:60:ARG:NH1	2.10	0.83
1:AA:2324:U:H3'	1:AA:2325:G:H5''	1.59	0.83
33:FA:1433:A:OP2	59:FA:1836:HOH:O	1.95	0.83
1:CA:1783:A:OP1	59:CA:3687:HOH:O	1.96	0.83
1:GA:819:A:OP2	1:GA:1187:G:N2	2.10	0.83
1:AA:2884:U:O2	27:A0:49:ARG:NE	2.10	0.83
1:CA:731:C:OP2	59:CA:3293:HOH:O	1.97	0.83
2:EB:43:C:O2	6:EF:91:ARG:NH2	2.12	0.83
33:DA:684:U:O2'	43:DK:40:ASN:O	1.96	0.83
1:GA:2009:A:OP1	19:GS:41:LYS:NZ	2.11	0.83
33:BA:1130:A:OP1	41:BI:18:ARG:NH2	2.11	0.83
22:GV:18:ARG:NE	59:GV:101:HOH:O	2.11	0.83
1:EA:2743:U:OP2	59:EA:3816:HOH:O	1.96	0.83
32:A5:103:ASN:ND2	32:A5:107:GLU:O	2.12	0.83
1:EA:570:G:O6	59:EA:3684:HOH:O	1.97	0.82
35:FC:36:ASP:OD1	35:FC:59:ARG:NH1	2.13	0.82
32:E5:33:VAL:HG12	32:E5:34:THR:H	1.44	0.82
1:CA:2324:U:H3'	1:CA:2325:G:H5''	1.60	0.82
1:EA:1371:G:N7	59:EA:3401:HOH:O	2.10	0.82
33:HA:1116:U:O2'	41:HI:110:GLN:NE2	2.12	0.82
3:AC:69:ASN:O	3:AC:71:ASP:N	2.13	0.82
9:CI:72:THR:OG1	9:CI:112:LYS:NZ	2.11	0.82
16:AP:35:SER:OG	33:BA:345:C:OP1	1.96	0.82
1:EA:2248:C:OP2	59:EA:3507:HOH:O	1.96	0.82
36:BD:100:ASN:OD1	36:BD:111:ARG:NH1	2.12	0.82
43:HK:18:ASP:O	43:HK:37:ARG:NE	2.13	0.82
12:CL:102:GLY:N	59:CL:202:HOH:O	2.13	0.82
1:AA:2707:U:O2	14:AN:71:ARG:NH1	2.12	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1395:A:OP1	59:EA:3411:HOH:O	1.97	0.82
33:DA:83:C:N3	33:DA:87:C:N4	2.28	0.82
33:FA:1532:U:O4	53:FU:47:ARG:NH1	2.12	0.82
1:EA:2005:A:OP1	59:EA:3380:HOH:O	1.95	0.82
32:A5:71:CYS:CB	32:A5:117:LEU:HD12	2.10	0.82
33:FA:533:A:OP1	59:FA:1845:HOH:O	1.97	0.82
1:EA:954:G:OP2	13:EM:16:ARG:NH2	2.13	0.82
32:A5:33:VAL:HG12	32:A5:34:THR:H	1.44	0.81
1:GA:923:G:H1'	23:GW:23:LYS:HD3	1.62	0.81
1:CA:990:A:OP2	59:CA:3593:HOH:O	1.97	0.81
54:FV:203:GLU:O	54:FV:205:GLU:N	2.13	0.81
1:AA:1509:A:O2'	1:AA:1510:G:OP2	1.97	0.81
43:HK:108:THR:O	43:HK:109:ASN:ND2	2.12	0.81
1:GA:2503:A:OP1	59:GA:3662:HOH:O	1.98	0.81
13:AM:83:GLY:O	13:AM:85:GLY:N	2.12	0.81
1:EA:2575:C:OP2	59:EA:3709:HOH:O	1.97	0.81
1:GA:2247:A:OP1	59:GA:3505:HOH:O	1.96	0.81
1:GA:1157:G:OP1	59:GA:3593:HOH:O	1.98	0.81
33:HA:1366:C:O2'	42:HJ:62:ARG:NH2	2.14	0.81
39:DG:2:PRO:O	39:DG:4:ARG:N	2.14	0.81
1:CA:2269:G:OP1	59:CA:3506:HOH:O	1.99	0.81
43:DK:127:ARG:O	53:DU:34:ARG:NH1	2.14	0.81
1:CA:1395:A:OP1	59:CA:3409:HOH:O	1.99	0.81
1:EA:1509:A:O2'	1:EA:1510:G:OP2	1.99	0.81
2:AB:57:A:O2'	6:AF:160:LYS:NZ	2.14	0.81
1:EA:1998:A:OP2	4:ED:141:ARG:NH2	2.14	0.81
33:HA:1003:G:O6	33:HA:1036:A:N6	2.14	0.80
1:EA:1676:A:OP2	59:EA:3762:HOH:O	1.98	0.80
1:AA:1014:A:OP2	59:AA:3593:HOH:O	1.99	0.80
1:CA:299:A:OP2	59:CA:3549:HOH:O	1.98	0.80
12:GL:33:ARG:O	59:GL:304:HOH:O	1.99	0.80
1:AA:1268:A:OP1	59:AA:3375:HOH:O	1.99	0.80
41:DI:57:MET:SD	41:DI:58:VAL:N	2.54	0.80
54:HV:93:VAL:O	54:HV:95:PHE:N	2.14	0.80
1:AA:2499:C:O2	59:AA:3528:HOH:O	1.99	0.80
1:CA:1509:A:O2'	1:CA:1510:G:OP2	1.99	0.80
1:EA:2331:G:O2'	23:EW:39:GLN:O	2.00	0.80
34:FB:14:HIS:O	34:FB:14:HIS:ND1	2.14	0.80
54:BV:92:HIS:O	54:BV:122:GLN:NE2	2.15	0.80
1:AA:1818:U:OP2	3:AC:155:ARG:NH1	2.15	0.80
54:BV:219:HIS:O	54:BV:222:LEU:N	2.15	0.80
33:HA:937:A:OP2	59:HA:1773:HOH:O	2.00	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:50:ARG:NE	16:AP:57:ALA:O	2.13	0.80
33:DA:951:G:OP2	45:DM:101:ARG:NH2	2.15	0.80
34:FB:20:ARG:HA	34:FB:20:ARG:NE	1.97	0.80
16:GP:4:ILE:O	16:GP:6:GLN:N	2.15	0.79
1:GA:1820:U:OP1	3:GC:176:ARG:NH2	2.15	0.79
1:CA:1153:C:OP2	59:CA:3354:HOH:O	1.98	0.79
1:CA:2884:U:O2	27:C0:39:ARG:NH2	2.13	0.79
1:CA:1998:A:OP2	4:CD:141:ARG:NH2	2.15	0.79
1:GA:2428:G:OP1	59:GA:3690:HOH:O	1.99	0.79
1:CA:2503:A:OP1	59:CA:3663:HOH:O	1.98	0.79
32:A5:26:VAL:HG11	32:A5:77:VAL:CG1	2.11	0.79
33:DA:1125:U:OP2	33:DA:1145:A:N6	2.15	0.79
1:AA:761:A:N7	59:AA:3292:HOH:O	2.15	0.79
43:DK:126:LYS:O	53:DU:34:ARG:NH1	2.16	0.79
1:CA:1774:C:OP1	59:CA:3440:HOH:O	1.99	0.79
1:AA:2503:A:OP1	59:AA:3662:HOH:O	2.01	0.79
14:CN:117:ASP:O	14:CN:119:SER:N	2.16	0.79
1:EA:1106:G:OP1	32:E5:62:ARG:NH2	2.15	0.79
1:EA:137:U:O2'	1:EA:138:U:OP2	2.01	0.79
33:FA:1320:C:N3	51:FS:36:ARG:NH1	2.30	0.79
16:CP:50:ARG:NE	16:CP:57:ALA:O	2.16	0.79
1:EA:2204:G:OP2	3:EC:146:LYS:NZ	2.15	0.79
1:EA:163:C:O2'	1:EA:164:C:O5'	2.01	0.79
46:HN:91:GLY:O	46:HN:93:ILE:N	2.15	0.78
33:HA:1095:U:OP2	59:HA:1862:HOH:O	2.01	0.78
1:EA:250:G:OP2	30:E3:12:ARG:NH1	2.17	0.78
1:AA:1227:G:OP2	17:AQ:15:LYS:NZ	2.15	0.78
12:CL:93:ASN:O	12:CL:95:LEU:N	2.17	0.78
54:HV:422:PRO:O	54:HV:424:THR:N	2.17	0.78
1:CA:1265:A:OP2	59:CA:3737:HOH:O	2.01	0.78
1:CA:2139:U:O2'	1:CA:2152:G:O6	2.01	0.78
1:CA:1798:U:OP2	3:CC:270:ARG:NH2	2.16	0.78
1:CA:2136:G:O6	1:CA:2155:U:N3	2.15	0.78
4:ED:91:THR:OG1	4:ED:92:VAL:N	2.12	0.78
1:GA:85:G:OP1	21:GU:6:ARG:N	2.16	0.78
5:GE:21:ARG:O	5:GE:114:ARG:NH2	2.16	0.78
33:FA:516:U:O4	59:FA:1845:HOH:O	2.01	0.78
1:EA:923:G:H1'	23:EW:23:LYS:HD3	1.63	0.78
1:GA:450:G:O6	59:GA:3243:HOH:O	1.99	0.78
1:CA:923:G:H1'	23:CW:23:LYS:HD3	1.66	0.78
10:AJ:43:GLU:O	10:AJ:45:THR:N	2.17	0.78
33:HA:460:A:N6	33:HA:471:U:O4	2.15	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EC:68:ARG:NH2	3:EC:126:GLY:O	2.17	0.78
1:AA:863:A:OP2	59:AA:3718:HOH:O	2.00	0.78
1:GA:504:A:O2'	1:GA:505:A:OP1	2.00	0.78
36:DD:35:GLU:O	36:DD:37:ALA:N	2.16	0.78
35:HC:49:LYS:O	35:HC:72:ARG:NH2	2.17	0.78
13:EM:83:GLY:O	13:EM:85:GLY:N	2.16	0.78
1:GA:1604:C:OP2	59:GA:3410:HOH:O	2.01	0.78
10:AJ:39:LYS:O	59:AJ:201:HOH:O	2.01	0.78
33:BA:1376:U:OP2	39:BG:25:LYS:NZ	2.15	0.78
14:EN:73:ASN:HA	14:EN:76:VAL:HG12	1.64	0.78
33:DA:578:C:OP1	59:DA:1740:HOH:O	2.01	0.78
33:DA:411:A:OP1	36:DD:26:ARG:NH2	2.16	0.78
32:E5:73:LYS:HB2	32:E5:117:LEU:HD11	1.66	0.78
1:EA:946:C:OP2	59:EA:3347:HOH:O	2.02	0.78
54:FV:23:LYS:NZ	58:FV:801:GCP:O2G	2.17	0.78
54:HV:62:THR:O	59:HV:901:HOH:O	2.01	0.78
1:CA:1938:A:OP2	59:CA:3719:HOH:O	2.01	0.78
1:CA:954:G:OP2	13:CM:16:ARG:NH2	2.17	0.78
1:GA:526:A:OP1	59:GA:3247:HOH:O	2.01	0.78
1:GA:2592:G:OP1	59:GA:3465:HOH:O	2.01	0.77
1:GA:621:A:OP2	59:GA:3292:HOH:O	2.01	0.77
13:EM:1:MET:HB2	13:EM:47:GLU:HG3	1.67	0.77
54:DV:93:VAL:O	54:DV:95:PHE:N	2.18	0.77
1:AA:410:G:OP2	59:AA:3557:HOH:O	2.00	0.77
1:AA:1272:A:OP1	59:AA:3382:HOH:O	2.01	0.77
33:BA:1095:U:OP2	59:BA:1859:HOH:O	2.01	0.77
54:FV:645:GLN:O	54:FV:647:SER:N	2.17	0.77
1:AA:2142:A:N6	1:AA:2148:G:N7	2.32	0.77
1:EA:1023:U:OP2	59:EA:3706:HOH:O	2.03	0.77
1:GA:2016:U:OP1	59:GA:3275:HOH:O	2.00	0.77
54:BV:93:VAL:O	54:BV:95:PHE:N	2.18	0.77
54:FV:93:VAL:O	54:FV:95:PHE:N	2.18	0.77
44:HL:75:GLN:O	44:HL:77:HIS:N	2.18	0.77
1:AA:799:G:N7	59:AA:3319:HOH:O	2.18	0.77
1:AA:576:U:OP1	59:AA:3662:HOH:O	2.02	0.77
2:CB:43:C:O2	6:CF:91:ARG:NH2	2.17	0.77
1:EA:31:C:OP1	59:EA:3701:HOH:O	2.01	0.77
3:AC:68:ARG:NH2	3:AC:126:GLY:O	2.18	0.77
33:HA:1134:G:N2	33:HA:1140:C:N3	2.31	0.77
1:CA:733:G:N7	59:CA:3294:HOH:O	2.18	0.77
43:HK:81:ASN:ND2	43:HK:108:THR:OG1	2.17	0.77
1:AA:1998:A:OP2	4:AD:141:ARG:NH2	2.18	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:91:ARG:NH1	18:CR:11:GLN:O	2.17	0.77
32:E5:117:LEU:CD2	32:E5:120:ALA:CA	2.59	0.77
10:GJ:43:GLU:O	10:GJ:45:THR:N	2.18	0.77
4:CD:46:ARG:NH2	4:CD:88:GLU:OE2	2.18	0.77
1:EA:1658:C:OP1	59:EA:3804:HOH:O	2.02	0.77
32:A5:117:LEU:HD23	32:A5:120:ALA:HA	1.66	0.77
1:AA:1076:C:O2'	9:AI:93:ASN:ND2	2.18	0.77
1:EA:2588:G:OP1	59:EA:3797:HOH:O	2.03	0.77
1:AA:2483:C:N3	13:AM:123:LYS:NZ	2.33	0.77
33:BA:691:G:O6	43:BK:53:ARG:NH2	2.18	0.77
1:AA:1187:G:OP2	59:AA:3366:HOH:O	2.02	0.76
1:CA:2849:U:OP2	16:CP:92:ARG:NH1	2.18	0.76
53:BU:4:ILE:O	53:BU:17:ARG:NH1	2.16	0.76
1:GA:2139:U:O2'	1:GA:2152:G:N7	2.18	0.76
1:EA:411:G:OP1	59:EA:3559:HOH:O	2.02	0.76
1:CA:1153:C:OP2	59:CA:3356:HOH:O	2.03	0.76
33:DA:323:U:OP2	59:DA:1837:HOH:O	2.02	0.76
5:AE:170:ARG:NH2	5:AE:176:ASP:OD1	2.18	0.76
1:AA:962:G:OP1	59:AA:3353:HOH:O	2.02	0.76
46:FN:91:GLY:O	46:FN:93:ILE:N	2.18	0.76
1:AA:2743:U:O4	59:AA:3779:HOH:O	2.03	0.76
1:EA:963:U:OP1	59:EA:3354:HOH:O	2.02	0.76
1:CA:1824:G:OP2	59:CA:3648:HOH:O	2.03	0.76
1:GA:2243:U:OP1	59:GA:3729:HOH:O	2.02	0.76
17:AQ:63:ARG:NH1	17:AQ:95:ALA:O	2.17	0.76
1:GA:1001:A:OP2	59:GA:3726:HOH:O	2.04	0.76
9:CI:89:SER:OG	9:CI:135:MET:SD	2.43	0.76
46:DN:91:GLY:O	46:DN:93:ILE:N	2.19	0.76
1:CA:945:A:OP2	59:CA:3342:HOH:O	2.03	0.76
54:FV:219:HIS:O	54:FV:222:LEU:N	2.18	0.76
20:GT:39:THR:O	20:GT:41:ALA:N	2.18	0.76
9:GI:73:PRO:O	9:GI:112:LYS:NZ	2.13	0.76
39:HG:113:ASP:OD2	39:HG:122:ASN:ND2	2.18	0.76
1:EA:826:U:OP1	59:EA:3696:HOH:O	2.03	0.76
1:GA:2589:A:OP1	59:GA:3312:HOH:O	2.02	0.76
1:GA:2306:C:N4	6:GF:38:GLY:O	2.19	0.76
33:HA:723:U:O2'	33:HA:724:G:OP1	2.03	0.76
33:HA:1304:G:O2'	33:HA:1333:A:N6	2.18	0.76
1:GA:2427:C:OP1	59:GA:3690:HOH:O	2.03	0.76
33:DA:1130:A:OP1	41:DI:18:ARG:NH2	2.19	0.76
33:HA:1266:G:N2	33:HA:1269:A:OP2	2.19	0.76
1:EA:2582:G:OP2	59:EA:3702:HOH:O	2.04	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2324:U:H3'	1:GA:2325:G:H5''	1.67	0.76
1:CA:1913:A:H62	33:DA:1494:G:H5'	1.51	0.76
1:GA:2498:C:OP2	59:GA:3678:HOH:O	2.04	0.76
33:HA:537:G:OP2	59:HA:1894:HOH:O	2.04	0.76
12:AL:36:LYS:O	59:AL:207:HOH:O	2.03	0.75
33:FA:913:A:OP1	44:FL:44:LYS:NZ	2.19	0.75
1:CA:1444:G:OP2	59:CA:3629:HOH:O	2.04	0.75
23:GW:7:GLY:O	23:GW:10:ARG:NH1	2.19	0.75
1:AA:1799:G:OP2	3:AC:269:ARG:NH2	2.19	0.75
1:EA:2592:G:OP1	59:EA:3464:HOH:O	2.04	0.75
1:CA:2356:U:H4'	23:CW:16:GLU:HG3	1.67	0.75
54:DV:92:HIS:O	54:DV:122:GLN:NE2	2.19	0.75
54:BV:79:TYR:OH	54:BV:284:ASP:OD1	2.03	0.75
33:BA:362:G:N7	59:BA:1714:HOH:O	2.19	0.75
10:CJ:6:ALA:HB3	10:CJ:45:THR:HG21	1.69	0.75
32:E5:26:VAL:HG11	32:E5:77:VAL:HG13	1.68	0.75
1:AA:1265:A:OP2	59:AA:3741:HOH:O	2.05	0.75
1:CA:1913:A:H2'	55:DW:4:SER:HA	1.68	0.75
33:HA:980:C:OP2	59:HA:1832:HOH:O	2.04	0.75
33:DA:1137:C:O2	33:DA:1138:G:N2	2.20	0.75
54:FV:313:ASP:OD2	54:FV:378:ARG:NH1	2.20	0.75
33:FA:537:G:OP1	44:FL:110:ARG:NH2	2.19	0.75
1:CA:862:G:OP2	59:CA:3714:HOH:O	2.05	0.75
41:BI:57:MET:HA	41:BI:60:LYS:HG2	1.67	0.75
33:DA:572:A:OP2	59:DA:1738:HOH:O	2.04	0.75
1:AA:991:C:OP2	59:AA:3592:HOH:O	2.05	0.75
16:GP:104:GLY:O	16:GP:106:ALA:N	2.20	0.75
1:AA:1012:U:OP2	17:AQ:69:ARG:NH1	2.19	0.75
40:DH:9:ASP:OD1	40:DH:13:ARG:NH1	2.19	0.75
1:GA:1783:A:OP1	59:GA:3687:HOH:O	2.03	0.75
33:DA:204:G:H3'	33:DA:205:A:H5''	1.67	0.75
1:EA:2448:A:OP2	59:EA:3681:HOH:O	2.03	0.75
50:BR:26:ILE:HG21	50:BR:67:LEU:HB3	1.68	0.75
33:HA:1050:G:O2'	54:HV:542:GLY:O	2.02	0.75
1:GA:2714:G:OP2	59:GA:3545:HOH:O	2.03	0.75
33:BA:320:A:OP2	59:BA:1709:HOH:O	2.03	0.75
1:EA:2062:A:OP1	59:EA:3495:HOH:O	2.04	0.75
1:CA:2588:G:OP2	59:CA:3542:HOH:O	2.03	0.75
6:GF:23:SER:OG	6:GF:26:GLN:N	2.18	0.75
35:DC:19:ASN:O	35:DC:40:ARG:NH2	2.20	0.75
1:GA:607:U:OP1	59:GA:3287:HOH:O	2.05	0.75
48:BP:28:ARG:NH2	48:BP:29:ASN:OD1	2.19	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:58:A:OP2	59:CB:1308:HOH:O	2.03	0.74
43:BK:126:LYS:O	53:BU:34:ARG:NH1	2.21	0.74
33:BA:689:C:HO2'	33:BA:705:G:HO2'	1.36	0.74
33:BA:483:C:O2	48:BP:13:LYS:NZ	2.21	0.74
23:GW:35:ILE:O	23:GW:37:VAL:N	2.20	0.74
35:FC:85:GLU:OE1	35:FC:88:ARG:NH1	2.20	0.74
14:CN:73:ASN:HA	14:CN:76:VAL:HG12	1.69	0.74
1:GA:971:G:OP2	1:GA:974:G:N2	2.21	0.74
47:BO:64:ARG:NH1	47:BO:68:ASP:OD1	2.20	0.74
1:GA:587:C:OP2	12:GL:21:ARG:NH1	2.19	0.74
36:FD:85:ASN:ND2	37:FE:101:GLU:OE1	2.20	0.74
42:FJ:59:LYS:O	42:FJ:62:ARG:NH1	2.21	0.74
1:GA:2430:A:OP2	59:GA:3341:HOH:O	2.06	0.74
23:GW:36:ILE:O	23:GW:39:GLN:NE2	2.21	0.74
33:HA:1433:A:OP2	59:HA:1837:HOH:O	2.05	0.74
1:CA:2270:A:OP1	59:CA:3510:HOH:O	2.05	0.74
1:GA:1926:U:O4	1:GA:1929:G:N1	2.19	0.74
1:GA:1664:A:OP1	59:GA:3423:HOH:O	2.05	0.74
1:GA:1395:A:OP2	59:GA:3408:HOH:O	2.04	0.74
1:EA:1153:C:OP2	59:EA:3359:HOH:O	2.04	0.74
46:BN:91:GLY:O	46:BN:93:ILE:N	2.21	0.74
33:HA:1416:G:N7	59:HA:1793:HOH:O	2.21	0.74
34:DB:14:HIS:ND1	34:DB:14:HIS:O	2.20	0.74
1:CA:1010:A:OP2	59:CA:3767:HOH:O	2.04	0.74
23:EW:23:LYS:HE2	23:EW:24:ARG:HB3	1.69	0.74
1:GA:1063:G:H21	1:GA:1064:C:H1'	1.51	0.74
34:BB:20:ARG:O	34:BB:22:TRP:N	2.21	0.74
4:CD:39:ASP:OD1	4:CD:40:LEU:N	2.20	0.74
23:EW:35:ILE:O	23:EW:37:VAL:N	2.21	0.74
1:CA:1774:C:OP1	59:CA:3444:HOH:O	2.05	0.74
39:BG:113:ASP:OD2	39:BG:122:ASN:ND2	2.21	0.74
37:DE:155:ALA:HB1	40:DH:66:PHE:CZ	2.23	0.74
33:DA:1033:G:H2'	33:DA:1034:G:H5'	1.69	0.74
34:HB:14:HIS:ND1	34:HB:14:HIS:O	2.20	0.74
48:DP:63:GLN:OE1	48:DP:63:GLN:N	2.21	0.74
24:AX:1:SER:O	24:AX:49:ARG:NH2	2.21	0.74
33:HA:978:A:OP2	33:HA:1362:A:N6	2.20	0.73
54:DV:560:GLN:OE1	54:DV:560:GLN:N	2.20	0.73
1:EA:2324:U:H3'	1:EA:2325:G:H5''	1.70	0.73
33:DA:1052:U:OP1	59:DA:1823:HOH:O	2.06	0.73
1:GA:2755:C:O2	59:GA:3805:HOH:O	2.05	0.73
9:GI:109:ALA:HB1	9:GI:124:MET:HB2	1.70	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1998:A:OP2	4:GD:141:ARG:NH2	2.20	0.73
1:AA:1824:G:OP2	59:AA:3651:HOH:O	2.06	0.73
33:FA:1303:C:OP1	59:FA:1791:HOH:O	2.05	0.73
33:HA:1220:G:OP1	51:HS:37:ARG:NE	2.22	0.73
1:CA:509:C:O3'	59:CA:3757:HOH:O	2.06	0.73
52:DT:78:ASN:ND2	59:DT:101:HOH:O	2.18	0.73
33:FA:1522:U:OP1	43:FK:128:ARG:NH2	2.22	0.73
1:CA:567:U:OP1	59:CA:3254:HOH:O	2.07	0.73
2:AB:59:A:O2'	15:AO:3:LYS:NZ	2.14	0.73
1:AA:999:U:OP2	59:AA:3356:HOH:O	2.06	0.73
32:E5:71:CYS:HA	32:E5:117:LEU:CD1	2.19	0.73
1:EA:1658:C:OP1	59:EA:3648:HOH:O	2.05	0.73
1:CA:2588:G:OP1	59:CA:3313:HOH:O	2.06	0.73
20:CT:9:LYS:O	20:CT:12:ARG:NH1	2.22	0.73
1:AA:990:A:OP2	59:AA:3590:HOH:O	2.05	0.73
42:DJ:32:THR:OG1	42:DJ:82:LYS:O	2.07	0.73
1:EA:410:G:OP2	59:EA:3561:HOH:O	2.05	0.73
1:CA:197:A:OP1	59:CA:3747:HOH:O	2.06	0.73
33:HA:1180:A:OP2	41:HI:99:ARG:NH2	2.22	0.73
54:HV:219:HIS:O	54:HV:222:LEU:N	2.21	0.73
1:AA:1551:A:N6	59:AA:3625:HOH:O	2.21	0.73
1:EA:1380:G:N2	1:EA:1570:A:N1	2.35	0.73
21:EU:98:ASN:O	21:EU:100:GLU:N	2.20	0.73
1:GA:1617:C:OP1	59:GA:3416:HOH:O	2.06	0.73
41:BI:50:GLN:OE1	41:BI:80:ARG:NH1	2.22	0.73
1:AA:762:U:OP1	59:AA:3685:HOH:O	2.06	0.73
33:BA:204:G:H3'	33:BA:205:A:H5''	1.70	0.73
1:AA:945:A:OP1	59:AA:3347:HOH:O	2.06	0.73
1:EA:883:G:N3	1:EA:893:C:N4	2.37	0.73
33:HA:1108:G:O6	59:HA:1862:HOH:O	2.06	0.73
43:BK:20:VAL:HG23	43:BK:37:ARG:HA	1.70	0.73
33:DA:100:G:OP2	59:DA:1870:HOH:O	2.07	0.72
33:BA:537:G:OP1	44:BL:110:ARG:NH2	2.22	0.72
33:FA:1345:U:OP2	59:FA:1766:HOH:O	2.06	0.72
33:BA:964:A:OP1	59:BA:1828:HOH:O	2.07	0.72
21:AU:98:ASN:O	21:AU:100:GLU:N	2.21	0.72
32:A5:103:ASN:ND2	32:A5:109:LYS:O	2.21	0.72
41:BI:57:MET:SD	41:BI:58:VAL:N	2.61	0.72
37:FE:111:MET:HB2	37:FE:140:THR:HG21	1.71	0.72
33:FA:934:C:OP1	59:FA:1768:HOH:O	2.06	0.72
1:EA:1782:U:OP1	59:EA:3687:HOH:O	2.06	0.72
17:GQ:91:ARG:NH1	18:GR:11:GLN:O	2.22	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1636:U:OP2	59:GA:3642:HOH:O	2.06	0.72
1:CA:163:C:O2'	1:CA:164:C:O5'	2.06	0.72
1:EA:982:C:O3'	59:EA:3563:HOH:O	2.06	0.72
33:BA:687:A:N6	33:BA:703:G:N3	2.37	0.72
1:CA:1780:A:OP1	59:CA:3683:HOH:O	2.07	0.72
1:GA:1263:U:OP1	27:G0:12:ARG:NH1	2.23	0.72
3:EC:69:ASN:O	3:EC:71:ASP:N	2.22	0.72
1:GA:963:U:OP1	59:GA:3351:HOH:O	2.05	0.72
12:AL:93:ASN:O	12:AL:95:LEU:N	2.22	0.72
10:EJ:6:ALA:HB3	10:EJ:45:THR:HG21	1.72	0.72
12:EL:93:ASN:OD1	12:EL:94:THR:N	2.23	0.72
4:ED:118:PHE:O	4:ED:120:GLY:N	2.21	0.72
1:AA:1186:G:OP2	59:AA:3591:HOH:O	2.07	0.72
33:HA:1194:U:H5'	37:HE:27:GLY:HA2	1.72	0.72
1:GA:2744:G:N2	7:GG:142:GLN:OE1	2.23	0.72
1:EA:1376:C:OP1	59:EA:3398:HOH:O	2.07	0.72
1:GA:2025:C:OP2	59:GA:3473:HOH:O	2.06	0.72
33:HA:521:G:OP2	44:HL:51:LYS:NZ	2.23	0.72
1:AA:2477:U:O2	31:A4:4:ARG:NH2	2.23	0.72
1:CA:576:U:OP1	59:CA:3661:HOH:O	2.06	0.72
32:A5:1:MET:SD	32:A5:2:ALA:N	2.58	0.72
16:GP:63:ILE:HA	16:GP:68:GLY:HA2	1.70	0.72
1:EA:2243:U:OP1	59:EA:3736:HOH:O	2.08	0.72
37:BE:82:GLN:HG2	37:BE:150:PRO:HD3	1.71	0.72
44:DL:75:GLN:O	44:DL:77:HIS:N	2.22	0.72
1:CA:2102:G:N2	1:CA:2188:U:H3	1.88	0.72
33:FA:1417:G:O6	59:FA:1794:HOH:O	2.08	0.72
1:EA:254:G:N7	30:E3:4:LYS:NZ	2.38	0.72
1:AA:731:C:OP2	59:AA:3295:HOH:O	2.07	0.72
33:HA:195:A:OP2	59:HA:1876:HOH:O	2.07	0.72
23:AW:36:ILE:O	23:AW:39:GLN:NE2	2.22	0.72
1:AA:250:G:OP2	30:A3:12:ARG:NH1	2.22	0.72
1:AA:1352:U:OP2	59:AA:3397:HOH:O	2.08	0.72
23:CW:7:GLY:O	23:CW:10:ARG:NH1	2.22	0.72
1:GA:572:A:OP1	59:GA:3563:HOH:O	2.08	0.72
1:EA:1970:A:OP2	59:EA:3468:HOH:O	2.07	0.72
1:CA:1913:A:N6	33:DA:1493:A:H2'	2.05	0.71
35:FC:40:ARG:NH1	35:FC:55:ILE:O	2.23	0.71
1:CA:818:G:OP2	59:CA:3572:HOH:O	2.07	0.71
11:AK:70:ARG:NH1	11:AK:74:GLY:O	2.23	0.71
23:AW:9:THR:HG23	23:AW:10:ARG:HD3	1.72	0.71
9:AI:73:PRO:O	9:AI:112:LYS:NZ	2.21	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:HD:25:VAL:HG23	36:HD:26:ARG:H	1.56	0.71
33:DA:1303:C:OP1	59:DA:1788:HOH:O	2.08	0.71
1:EA:1248:G:OP2	5:EE:44:ARG:NH1	2.23	0.71
32:A5:24:SER:HB3	32:A5:116:GLU:CD	2.10	0.71
33:BA:803:G:OP1	59:BA:1749:HOH:O	2.09	0.71
1:EA:1077:A:H4'	9:EI:93:ASN:HB2	1.73	0.71
1:GA:910:A:OP1	59:GA:3714:HOH:O	2.08	0.71
33:HA:782:A:OP1	59:HA:1812:HOH:O	2.07	0.71
54:BV:309:ARG:NH2	54:BV:402:ALA:O	2.24	0.71
23:CW:37:VAL:HG13	23:CW:55:ASP:O	1.91	0.71
33:BA:1007:U:H2'	33:BA:1008:U:H5'	1.71	0.71
1:GA:1088:A:O2'	1:GA:1089:A:OP1	2.08	0.71
46:HN:27:LEU:O	46:HN:31:ILE:N	2.24	0.71
20:AT:39:THR:O	20:AT:41:ALA:N	2.23	0.71
1:AA:2547:A:H2'	1:AA:2548:U:C6	2.26	0.71
54:BV:203:GLU:O	54:BV:205:GLU:N	2.24	0.71
32:A5:30:SER:O	32:A5:31:ARG:CB	2.39	0.71
1:CA:2331:G:O2'	23:CW:39:GLN:O	2.07	0.71
33:FA:1524:C:OP2	59:FA:1897:HOH:O	2.08	0.71
1:GA:15:G:OP2	59:GA:3549:HOH:O	2.08	0.71
1:EA:2550:G:OP1	59:EA:3719:HOH:O	2.08	0.71
44:FL:44:LYS:HB3	44:FL:45:PRO:HD3	1.70	0.71
1:GA:1079:C:O2'	1:GA:1080:A:OP1	2.08	0.71
24:GX:32:LEU:O	24:GX:33:HIS:ND1	2.24	0.71
1:EA:789:A:N1	59:EA:3312:HOH:O	2.23	0.71
1:AA:2874:C:OP1	59:AA:3791:HOH:O	2.08	0.71
1:GA:1095:A:C6	54:HV:628:THR:HA	2.25	0.71
1:GA:1163:G:OP1	18:GR:24:LYS:NZ	2.19	0.71
1:GA:1268:A:OP1	59:GA:3376:HOH:O	2.08	0.71
3:GC:68:ARG:NH2	3:GC:126:GLY:O	2.23	0.71
1:AA:784:G:OP2	59:AA:3312:HOH:O	2.08	0.71
33:HA:404:G:O2'	33:HA:498:A:N1	2.21	0.71
33:HA:404:G:O6	36:HD:2:ALA:N	2.24	0.71
54:HV:508:GLN:O	54:HV:508:GLN:NE2	2.24	0.71
53:DU:44:GLU:OE2	53:DU:45:ARG:NH1	2.24	0.71
33:BA:1502:A:N7	59:BA:1867:HOH:O	2.23	0.71
1:AA:1187:G:O6	59:AA:3571:HOH:O	2.08	0.71
1:AA:990:A:OP2	59:AA:3592:HOH:O	2.09	0.71
1:AA:945:A:OP2	59:AA:3345:HOH:O	2.08	0.71
1:GA:276:U:O2'	1:GA:278:A:N6	2.24	0.71
36:FD:35:GLU:O	36:FD:37:ALA:N	2.24	0.71
23:EW:9:THR:OG1	23:EW:10:ARG:N	2.23	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:E5:24:SER:O	32:E5:116:GLU:CB	2.37	0.70
1:GA:1774:C:OP1	59:GA:3443:HOH:O	2.08	0.70
1:AA:1186:G:OP2	59:AA:3592:HOH:O	2.08	0.70
12:EL:93:ASN:O	12:EL:95:LEU:N	2.24	0.70
1:CA:962:G:OP1	59:CA:3352:HOH:O	2.09	0.70
32:E5:94:ARG:O	32:E5:97:LYS:N	2.24	0.70
1:AA:981:A:OP1	59:AA:3587:HOH:O	2.08	0.70
1:CA:557:C:OP1	59:CA:3246:HOH:O	2.09	0.70
21:AU:6:ARG:NH2	21:AU:7:ASP:OD1	2.24	0.70
10:AJ:131:ASN:N	10:AJ:131:ASN:OD1	2.23	0.70
1:AA:1322:A:OP1	19:AS:11:ARG:NE	2.24	0.70
1:GA:800:A:OP1	59:GA:3323:HOH:O	2.09	0.70
39:HG:126:ASP:O	39:HG:130:ASN:N	2.24	0.70
33:FA:934:C:OP1	59:FA:1765:HOH:O	2.09	0.70
45:FM:11:ASP:OD1	45:FM:12:HIS:N	2.24	0.70
29:E2:43:THR:O	29:E2:44:VAL:HB	1.90	0.70
54:FV:79:TYR:OH	54:FV:284:ASP:OD1	2.06	0.70
1:EA:1604:C:OP2	59:EA:3409:HOH:O	2.08	0.70
33:HA:858:G:N7	59:HA:1819:HOH:O	2.24	0.70
43:DK:125:LYS:HE3	53:DU:35:ARG:HE	1.56	0.70
1:EA:2269:G:O2'	23:EW:18:LYS:HG2	1.91	0.70
1:AA:1670:C:OP1	59:AA:3434:HOH:O	2.07	0.70
17:CQ:91:ARG:HE	17:CQ:93:ILE:CG2	2.04	0.70
1:AA:2387:U:O2'	23:AW:38:ARG:NH2	2.23	0.70
1:CA:675:A:OP2	59:CA:3327:HOH:O	2.10	0.70
1:AA:2592:G:OP1	59:AA:3462:HOH:O	2.09	0.70
38:BF:91:ARG:HG2	38:BF:92:THR:H	1.55	0.70
33:DA:533:A:O2'	33:DA:535:A:OP2	2.05	0.70
33:FA:1152:A:OP1	42:FJ:70:HIS:ND1	2.24	0.70
33:HA:1296:C:O3'	33:HA:1302:C:N4	2.25	0.70
33:DA:1007:U:H2'	33:DA:1008:U:H5'	1.72	0.70
11:EK:78:ARG:NH1	16:EP:70:GLU:OE2	2.25	0.70
32:E5:26:VAL:CG2	32:E5:115:GLY:N	2.48	0.70
1:AA:730:A:OP2	59:AA:3687:HOH:O	2.10	0.70
43:HK:114:THR:OG1	53:HU:24:GLU:OE1	2.09	0.70
1:AA:1336:A:OP1	20:AT:68:LYS:NZ	2.24	0.70
12:GL:93:ASN:OD1	12:GL:94:THR:N	2.23	0.70
1:AA:787:C:OP1	59:AA:3746:HOH:O	2.09	0.70
17:EQ:63:ARG:NH1	17:EQ:95:ALA:O	2.25	0.70
33:HA:937:A:OP2	59:HA:1775:HOH:O	2.09	0.70
33:HA:490:C:OP1	36:HD:146:ARG:NH2	2.24	0.70
54:HV:509:SER:OG	54:HV:512:ARG:O	2.10	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FL:34:CYS:HA	44:FL:55:VAL:HA	1.72	0.70
45:HM:23:TYR:N	45:HM:66:GLU:OE2	2.24	0.70
16:CP:50:ARG:HG2	16:CP:57:ALA:H	1.56	0.70
33:DA:881:G:OP2	44:DL:9:ARG:NH2	2.25	0.70
51:HS:35:SER:HG	51:HS:38:SER:HG	1.36	0.70
1:EA:1031:G:H4'	31:E4:6:SER:HB2	1.74	0.70
52:HT:3:ASN:O	52:HT:5:LYS:N	2.21	0.70
38:BF:23:GLU:O	38:BF:27:ALA:N	2.24	0.70
1:GA:803:U:OP2	59:GA:3321:HOH:O	2.09	0.70
1:AA:1267:U:OP2	59:AA:3368:HOH:O	2.10	0.70
1:AA:975:A:OP2	59:AA:3583:HOH:O	2.10	0.70
45:DM:114:LYS:HB2	45:DM:115:PRO:HD3	1.74	0.70
39:FG:57:SER:OG	39:FG:58:GLU:N	2.25	0.70
33:BA:2:A:N6	33:BA:3:A:N1	2.40	0.70
6:AF:11:VAL:HG13	6:AF:171:ALA:HB3	1.72	0.70
10:EJ:64:VAL:O	10:EJ:65:THR:HB	1.90	0.70
54:FV:422:PRO:O	54:FV:424:THR:N	2.25	0.70
37:FE:45:ARG:HA	37:FE:72:ILE:O	1.92	0.70
33:DA:1296:C:O3'	33:DA:1302:C:N4	2.25	0.70
1:EA:622:G:OP2	59:EA:3806:HOH:O	2.09	0.70
33:HA:1027:C:O2'	33:HA:1034:G:N2	2.24	0.70
1:EA:2136:G:OP2	1:EA:2155:U:N3	2.24	0.70
1:AA:450:G:OP2	59:AA:3237:HOH:O	2.10	0.70
33:BA:558:G:OP1	59:BA:1837:HOH:O	2.10	0.70
1:GA:1248:G:OP2	5:GE:44:ARG:NH1	2.25	0.70
9:GI:33:ASN:ND2	9:GI:64:ARG:O	2.24	0.69
8:CH:27:ARG:NH1	24:CX:63:ILE:HG12	2.07	0.69
54:BV:422:PRO:O	54:BV:424:THR:N	2.24	0.69
1:GA:1676:A:OP2	59:GA:3753:HOH:O	2.10	0.69
34:FB:132:GLU:OE2	34:FB:136:ARG:NH1	2.25	0.69
34:FB:140:LEU:O	34:FB:144:GLU:N	2.23	0.69
34:BB:14:HIS:ND1	34:BB:14:HIS:O	2.25	0.69
1:AA:1069:A:C5	1:AA:1073:A:N7	2.59	0.69
33:FA:1304:G:OP2	59:FA:1791:HOH:O	2.10	0.69
6:AF:49:LEU:HD11	6:AF:86:CYS:SG	2.32	0.69
1:AA:1813:G:H1'	3:AC:49:THR:HG21	1.73	0.69
23:EW:37:VAL:HG12	23:EW:38:ARG:H	1.57	0.69
33:FA:1366:C:O2'	42:FJ:62:ARG:NH2	2.24	0.69
1:EA:1670:C:OP1	59:EA:3436:HOH:O	2.11	0.69
16:CP:33:GLU:OE2	16:CP:38:ARG:NH2	2.26	0.69
1:GA:948:C:O2	1:GA:984:A:O2'	2.10	0.69
32:E5:71:CYS:HB3	32:E5:117:LEU:HD12	1.75	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:91:ARG:HB2	17:CQ:94:LEU:HB2	1.75	0.69
1:CA:1913:A:N7	33:DA:1494:G:H4'	2.07	0.69
9:GI:29:GLN:OE1	54:HV:647:SER:OG	2.10	0.69
46:HN:64:CYS:SG	46:HN:67:THR:OG1	2.50	0.69
1:EA:1938:A:OP2	59:EA:3727:HOH:O	2.10	0.69
45:BM:5:ALA:HB2	45:BM:60:VAL:HG13	1.74	0.69
47:DO:47:LYS:O	47:DO:53:ARG:NH2	2.25	0.69
1:AA:122:G:N7	59:AA:3213:HOH:O	2.25	0.69
33:BA:1500:A:OP2	59:BA:1869:HOH:O	2.09	0.69
32:E5:93:ALA:HA	32:E5:130:PRO:HG2	1.74	0.69
32:E5:30:SER:O	32:E5:31:ARG:CB	2.40	0.69
1:GA:784:G:OP2	59:GA:3313:HOH:O	2.10	0.69
1:AA:783:A:OP2	59:AA:3312:HOH:O	2.09	0.69
23:EW:9:THR:HG23	23:EW:10:ARG:HD3	1.74	0.69
33:BA:1500:A:OP1	59:BA:1797:HOH:O	2.10	0.69
1:AA:142:A:C2	20:AT:2:ILE:HG23	2.28	0.69
1:AA:769:U:OP1	59:AA:3712:HOH:O	2.11	0.69
6:EF:139:GLU:OE1	6:EF:139:GLU:N	2.26	0.69
1:AA:1456:G:O6	59:AA:3412:HOH:O	2.10	0.69
33:DA:1524:C:OP2	43:DK:125:LYS:NZ	2.24	0.69
33:BA:689:C:OP1	43:BK:46:THR:OG1	2.10	0.69
23:GW:9:THR:OG1	23:GW:10:ARG:N	2.26	0.69
1:CA:2711:A:OP1	59:CA:3543:HOH:O	2.11	0.69
1:EA:480:A:OP2	21:EU:43:LYS:NZ	2.24	0.69
33:HA:808:C:OP2	47:HO:48:LYS:NZ	2.19	0.69
41:HI:92:GLU:O	41:HI:96:SER:OG	2.09	0.69
45:BM:11:ASP:OD1	45:BM:12:HIS:N	2.24	0.69
33:BA:978:A:HO2'	33:BA:1322:C:H5	1.38	0.69
1:CA:276:U:O2'	1:CA:278:A:N7	2.25	0.69
33:BA:509:A:OP2	59:BA:1721:HOH:O	2.10	0.69
43:HK:16:VAL:O	43:HK:37:ARG:NH2	2.26	0.69
34:FB:20:ARG:HA	34:FB:20:ARG:CZ	2.23	0.69
15:AO:2:ASP:OD2	15:AO:3:LYS:HG2	1.92	0.69
1:GA:572:A:OP2	18:GR:80:ARG:NH2	2.26	0.69
33:BA:1499:A:OP2	59:BA:1869:HOH:O	2.10	0.69
1:EA:192:C:N3	59:EA:3325:HOH:O	2.26	0.69
36:BD:35:GLU:O	36:BD:37:ALA:N	2.25	0.69
20:CT:44:LYS:HG3	20:CT:55:VAL:HG11	1.75	0.69
33:BA:1468:A:H2'	33:BA:1469:C:H5'	1.75	0.69
33:FA:315:A:OP2	59:FA:1708:HOH:O	2.10	0.69
1:AA:2353:G:H1'	23:AW:30:VAL:CG1	2.22	0.69
20:CT:37:ASP:OD1	20:CT:37:ASP:N	2.24	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:645:GLN:O	54:DV:647:SER:N	2.26	0.69
1:AA:564:C:O2	1:AA:578:G:N2	2.26	0.69
1:CA:2022:U:OP1	59:CA:3656:HOH:O	2.10	0.69
41:FI:36:GLU:HA	41:FI:40:GLY:HA3	1.75	0.69
17:CQ:63:ARG:NH1	17:CQ:95:ALA:O	2.25	0.69
14:CN:117:ASP:OD1	14:CN:118:ARG:N	2.26	0.69
18:CR:46:GLU:OE2	18:CR:46:GLU:N	2.26	0.69
34:BB:115:ASP:O	34:BB:119:GLN:NE2	2.25	0.68
1:AA:1223:G:OP1	18:AR:68:ARG:NH1	2.25	0.68
1:GA:990:A:OP2	59:GA:3592:HOH:O	2.10	0.68
33:DA:1304:G:O6	59:DA:1785:HOH:O	2.09	0.68
1:EA:2522:U:O2'	1:EA:2647:U:OP1	2.11	0.68
1:CA:635:C:OP2	12:CL:126:ARG:NH1	2.26	0.68
1:CA:2707:U:O2	14:CN:71:ARG:NH1	2.26	0.68
10:GJ:81:ILE:HG13	10:GJ:82:GLY:N	2.09	0.68
1:AA:2331:G:O2'	23:AW:39:GLN:O	2.10	0.68
18:CR:42:ALA:HA	18:CR:46:GLU:HB2	1.75	0.68
37:FE:159:LYS:O	40:FH:64:LYS:NZ	2.24	0.68
1:CA:948:C:O2	1:CA:984:A:O2'	2.12	0.68
1:GA:1010:A:OP2	59:GA:3766:HOH:O	2.10	0.68
28:C1:3:GLY:O	28:C1:5:ARG:N	2.25	0.68
1:AA:1079:C:H2'	1:AA:1080:A:H5'	1.75	0.68
33:HA:1222:G:O6	59:HA:1832:HOH:O	2.09	0.68
23:AW:38:ARG:HD2	23:AW:38:ARG:N	2.08	0.68
58:BV:801:GCP:O3G	59:BV:901:HOH:O	2.11	0.68
54:FV:23:LYS:HB3	58:FV:801:GCP:O1B	1.94	0.68
41:BI:57:MET:O	41:BI:59:GLU:N	2.24	0.68
1:AA:629:G:N3	1:AA:639:U:O2'	2.26	0.68
1:AA:1009:A:OP2	59:AA:3771:HOH:O	2.10	0.68
4:AD:33:ARG:NH1	4:AD:53:GLY:O	2.26	0.68
1:CA:2429:G:OP1	59:CA:3339:HOH:O	2.11	0.68
1:CA:1670:C:OP1	59:CA:3433:HOH:O	2.10	0.68
7:EG:165:ASP:OD1	7:EG:165:ASP:N	2.25	0.68
1:AA:2006:C:OP1	59:AA:3375:HOH:O	2.10	0.68
17:AQ:81:GLY:HA2	17:AQ:116:LEU:HD13	1.74	0.68
39:BG:15:ASP:OD1	39:BG:44:TYR:OH	2.11	0.68
1:CA:1353:A:O3'	3:CC:35:LYS:NZ	2.27	0.68
1:AA:2503:A:OP1	59:AA:3663:HOH:O	2.12	0.68
1:GA:2387:U:O2'	23:GW:38:ARG:NH2	2.27	0.68
1:AA:621:A:OP2	59:AA:3291:HOH:O	2.12	0.68
33:DA:1505:G:OP2	59:DA:1866:HOH:O	2.10	0.68
33:HA:401:C:O2'	33:HA:621:A:O2'	2.02	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1272:A:OP1	59:AA:3383:HOH:O	2.10	0.68
33:HA:1198:G:OP2	59:HA:1831:HOH:O	2.12	0.68
33:FA:1033:G:H2'	33:FA:1034:G:H5'	1.74	0.68
35:FC:3:GLN:N	35:FC:3:GLN:OE1	2.27	0.68
6:CF:139:GLU:OE1	6:CF:139:GLU:N	2.26	0.68
1:CA:826:U:OP1	59:CA:3339:HOH:O	2.11	0.68
33:DA:1412:C:OP1	44:DL:54:ARG:NH1	2.27	0.68
54:FV:309:ARG:NH2	54:FV:402:ALA:O	2.27	0.68
32:A5:54:VAL:HG22	32:A5:83:ALA:HB1	1.76	0.68
53:BU:6:VAL:HG13	53:BU:17:ARG:HD3	1.76	0.68
51:BS:36:ARG:NH2	51:BS:75:ALA:O	2.25	0.68
35:BC:71:ALA:HA	35:BC:106:VAL:HG22	1.76	0.68
41:BI:57:MET:HA	41:BI:60:LYS:CG	2.23	0.68
43:HK:88:GLY:H	43:HK:114:THR:HG22	1.58	0.68
1:GA:567:U:OP1	59:GA:3258:HOH:O	2.12	0.68
33:FA:116:A:OP2	59:FA:1885:HOH:O	2.12	0.68
7:GG:46:ASP:OD1	7:GG:47:ASN:N	2.26	0.68
33:DA:1468:A:H2'	33:DA:1469:C:H5'	1.76	0.68
1:GA:2204:G:OP2	3:GC:146:LYS:NZ	2.26	0.68
33:BA:689:C:O2'	33:BA:705:G:O2'	2.09	0.67
16:GP:50:ARG:HG2	16:GP:57:ALA:H	1.59	0.67
1:EA:2110:G:OP1	1:EA:2148:G:N1	2.26	0.67
1:CA:981:A:OP1	59:CA:3588:HOH:O	2.10	0.67
1:GA:616:A:H4'	5:GE:101:TYR:CE2	2.28	0.67
2:AB:87:U:H3'	2:AB:88:C:H5'	1.74	0.67
1:AA:616:A:H4'	5:AE:101:TYR:CE2	2.29	0.67
32:E5:57:ASN:O	32:E5:59:LEU:N	2.27	0.67
52:FT:60:ARG:NH2	59:FT:104:HOH:O	2.27	0.67
1:CA:2105:U:H3	1:CA:2107:G:H5''	1.60	0.67
23:CW:24:ARG:HH12	23:CW:82:GLU:HB2	1.59	0.67
1:CA:2700:A:N1	59:CA:3674:HOH:O	2.27	0.67
33:FA:1007:U:H2'	33:FA:1008:U:H5'	1.75	0.67
1:AA:1371:G:N7	59:AA:3400:HOH:O	2.27	0.67
1:CA:621:A:OP2	59:CA:3292:HOH:O	2.10	0.67
46:BN:27:LEU:HA	46:BN:31:ILE:HD13	1.77	0.67
20:AT:50:LEU:HD12	20:AT:50:LEU:H	1.57	0.67
1:GA:1509:A:O2'	1:GA:1510:G:OP2	2.10	0.67
46:DN:49:GLN:N	46:DN:49:GLN:OE1	2.26	0.67
10:CJ:81:ILE:HG13	10:CJ:82:GLY:N	2.09	0.67
1:CA:818:G:OP2	59:CA:3575:HOH:O	2.11	0.67
33:BA:264:C:OP2	59:BA:1801:HOH:O	2.10	0.67
33:DA:608:A:OP2	59:DA:1849:HOH:O	2.12	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2356:U:H4'	23:GW:16:GLU:HG3	1.77	0.67
22:CV:4:ILE:HD11	22:CV:50:MET:SD	2.34	0.67
1:EA:1695:G:N7	3:EC:13:ARG:NH2	2.42	0.67
54:HV:92:HIS:O	54:HV:122:GLN:NE2	2.26	0.67
1:AA:2685:G:OP1	11:AK:78:ARG:NH2	2.27	0.67
39:FG:15:ASP:OD1	39:FG:44:TYR:OH	2.12	0.67
16:AP:52:ARG:HH11	16:AP:52:ARG:HG3	1.59	0.67
1:CA:761:A:OP1	59:CA:3293:HOH:O	2.13	0.67
1:GA:1784:A:OP2	59:GA:3687:HOH:O	2.13	0.67
23:CW:9:THR:OG1	23:CW:10:ARG:N	2.27	0.67
14:CN:42:LYS:O	14:CN:45:ARG:NH1	2.26	0.67
33:DA:414:A:OP2	59:DA:1717:HOH:O	2.13	0.67
33:DA:1199:U:OP1	59:DA:1824:HOH:O	2.13	0.67
54:FV:560:GLN:N	54:FV:560:GLN:OE1	2.27	0.67
47:BO:26:GLU:OE2	47:BO:77:ARG:NH1	2.26	0.67
9:GI:23:VAL:HG23	9:GI:24:GLY:H	1.59	0.67
33:BA:35:G:O2'	44:BL:115:SER:O	2.09	0.67
54:DV:500:ASP:N	54:DV:521:ASP:OD1	2.27	0.67
1:GA:137:U:O2'	1:GA:138:U:OP2	2.11	0.67
1:AA:1780:A:OP1	59:AA:3683:HOH:O	2.13	0.67
1:GA:2800:A:H3'	1:GA:2801:G:C5'	2.24	0.67
43:BK:108:THR:O	43:BK:109:ASN:ND2	2.27	0.67
20:GT:37:ASP:OD1	20:GT:37:ASP:N	2.27	0.67
1:GA:1253:A:N7	59:GA:3329:HOH:O	2.28	0.67
20:AT:19:LYS:O	20:AT:23:ALA:N	2.28	0.67
4:AD:148:GLN:HB2	4:AD:152:PRO:HG2	1.77	0.67
54:BV:313:ASP:OD2	54:BV:378:ARG:NH1	2.27	0.67
1:AA:2057:G:OP2	59:AA:3484:HOH:O	2.11	0.67
33:BA:1119:C:OP2	41:BI:11:ARG:NH2	2.27	0.67
23:AW:35:ILE:O	23:AW:37:VAL:N	2.27	0.67
33:DA:1003:G:N2	33:DA:1005:A:OP1	2.28	0.67
33:HA:1522:U:OP1	43:HK:128:ARG:NH2	2.28	0.67
1:AA:30:G:N7	59:AA:3212:HOH:O	2.28	0.67
1:GA:1361:G:OP2	59:GA:3611:HOH:O	2.12	0.67
33:HA:181:A:N7	59:HA:1878:HOH:O	2.26	0.67
42:FJ:35:GLN:HG2	42:FJ:77:VAL:H	1.60	0.67
3:EC:131:MET:O	3:EC:166:ARG:NH1	2.28	0.67
51:DS:36:ARG:NH2	51:DS:75:ALA:O	2.27	0.67
54:FV:78:GLN:NE2	54:FV:280:ASP:OD2	2.28	0.67
30:G3:23:HIS:ND1	30:G3:24:LYS:O	2.26	0.67
33:DA:723:U:H2'	53:DU:49:LYS:HG2	1.76	0.67
1:EA:297:G:OP2	59:EA:3227:HOH:O	2.12	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:E5:24:SER:HB3	32:E5:116:GLU:HG2	1.77	0.67
33:FA:509:A:OP2	59:FA:1724:HOH:O	2.12	0.67
1:CA:2324:U:H3'	1:CA:2325:G:C5'	2.24	0.67
14:CN:118:ARG:O	14:CN:120:GLU:N	2.28	0.67
46:DN:21:PHE:HA	46:DN:25:ALA:HB3	1.76	0.67
33:FA:1468:A:H2'	33:FA:1469:C:H5'	1.77	0.67
33:HA:1166:G:N1	33:HA:1169:A:OP2	2.28	0.67
1:EA:790:U:O5'	59:EA:3752:HOH:O	2.12	0.67
40:FH:53:GLY:HA3	40:FH:57:PRO:HA	1.74	0.67
33:FA:1279:G:H2'	33:FA:1279:G:N3	2.10	0.67
1:EA:2502:G:OP2	59:EA:3490:HOH:O	2.11	0.66
23:CW:37:VAL:HG12	23:CW:38:ARG:H	1.60	0.66
3:CC:52:HIS:ND1	59:CC:306:HOH:O	2.25	0.66
1:EA:1664:A:OP1	59:EA:3424:HOH:O	2.12	0.66
1:AA:1327:A:OP1	59:AA:3605:HOH:O	2.13	0.66
33:BA:1225:A:H2'	33:BA:1226:C:C5	2.30	0.66
37:DE:82:GLN:HG2	37:DE:150:PRO:HD3	1.77	0.66
1:GA:1279:G:H4'	14:GN:31:HIS:HD2	1.60	0.66
6:CF:162:ASP:N	6:CF:162:ASP:OD1	2.28	0.66
37:HE:70:ASN:O	37:HE:70:ASN:ND2	2.27	0.66
44:BL:75:GLN:O	44:BL:77:HIS:N	2.29	0.66
47:BO:39:LEU:O	47:BO:42:HIS:N	2.27	0.66
32:A5:26:VAL:HG11	32:A5:77:VAL:HG11	1.77	0.66
1:CA:1914:C:OP2	55:DW:5:UAL:N2	2.27	0.66
35:DC:34:ASP:OD2	46:DN:65:ARG:NH1	2.28	0.66
33:HA:579:A:O2'	47:HO:54:ARG:NH1	2.27	0.66
1:CA:740:C:OP2	59:CA:3688:HOH:O	2.12	0.66
46:DN:20:TYR:O	46:DN:24:ARG:N	2.28	0.66
1:GA:2109:U:H2'	1:GA:2110:G:H5''	1.75	0.66
1:CA:560:C:O3'	59:CA:3592:HOH:O	2.13	0.66
33:HA:71:A:O2'	33:HA:72:A:O4'	2.12	0.66
53:DU:10:GLU:OE2	39:HG:149:LYS:NZ	2.27	0.66
43:BK:33:THR:HA	43:BK:44:TRP:HB3	1.76	0.66
36:DD:99:ASP:OD1	36:DD:100:ASN:N	2.29	0.66
23:GW:51:GLY:HA3	23:GW:59:PHE:CE1	2.30	0.66
1:AA:945:A:OP2	59:AA:3343:HOH:O	2.13	0.66
1:AA:1176:U:O2'	1:AA:1177:G:O4'	2.13	0.66
5:AE:46:GLN:HG3	5:AE:87:ALA:HB3	1.77	0.66
1:EA:2429:G:OP2	59:EA:3344:HOH:O	2.12	0.66
40:HH:9:ASP:OD1	40:HH:13:ARG:NH1	2.29	0.66
1:AA:218:A:OP2	59:AA:3226:HOH:O	2.13	0.66
44:BL:34:CYS:HA	44:BL:55:VAL:HA	1.77	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2448:A:OP2	59:CA:3676:HOH:O	2.13	0.66
21:AU:98:ASN:ND2	21:AU:100:GLU:HB2	2.11	0.66
54:BV:78:GLN:NE2	54:BV:280:ASP:OD2	2.28	0.66
43:BK:101:ASN:ND2	53:BU:13:ASP:O	2.28	0.66
46:HN:54:ASP:OD1	46:HN:59:ARG:NH1	2.28	0.66
33:HA:769:G:H4'	33:HA:1513:A:H4'	1.77	0.66
1:AA:2312:U:H4'	6:AF:84:ILE:HG23	1.77	0.66
2:AB:43:C:O2	6:AF:91:ARG:NH2	2.28	0.66
34:BB:140:LEU:O	34:BB:144:GLU:N	2.27	0.66
13:CM:30:SER:OG	13:CM:106:ASP:OD1	2.12	0.66
3:GC:257:ARG:NH1	3:GC:263:ASP:OD1	2.29	0.66
1:EA:958:U:OP2	13:EM:14:LYS:NZ	2.28	0.66
18:AR:10:LYS:NZ	18:AR:23:GLU:OE1	2.29	0.66
1:GA:624:C:O2'	1:GA:657:U:OP1	2.13	0.66
10:CJ:19:ASP:OD1	10:CJ:58:ASN:ND2	2.28	0.66
1:CA:802:A:OP1	59:CA:3326:HOH:O	2.12	0.66
54:BV:8:ALA:O	54:BV:288:SER:OG	2.14	0.66
1:AA:411:G:OP2	1:AA:2406:A:O2'	2.12	0.66
33:HA:1508:A:OP1	59:HA:1800:HOH:O	2.13	0.66
1:GA:1327:A:OP2	59:GA:3606:HOH:O	2.13	0.66
1:AA:1174:U:O2'	1:AA:1176:U:O4'	2.13	0.66
34:FB:32:GLY:HA3	34:FB:39:ILE:H	1.59	0.66
33:BA:1166:G:N1	33:BA:1169:A:OP2	2.29	0.66
1:EA:2353:G:H1'	23:EW:30:VAL:CG1	2.26	0.66
33:HA:7:A:N3	59:HA:1838:HOH:O	2.28	0.66
10:CJ:110:PRO:HB2	10:CJ:111:LYS:HG2	1.78	0.66
1:EA:652:U:OP1	1:EA:654:A:N6	2.28	0.66
1:CA:761:A:N7	59:CA:3294:HOH:O	2.29	0.66
32:A5:57:ASN:O	32:A5:59:LEU:N	2.29	0.66
41:DI:7:TYR:HE1	41:DI:18:ARG:HB2	1.59	0.66
23:AW:37:VAL:HG12	23:AW:38:ARG:H	1.61	0.66
2:CB:87:U:H3'	2:CB:88:C:H5'	1.77	0.66
33:HA:352:C:OP2	59:HA:1892:HOH:O	2.14	0.66
33:FA:263:A:OP1	52:FT:74:ARG:NH1	2.28	0.66
6:GF:3:LEU:O	6:GF:7:TYR:N	2.28	0.66
15:GO:2:ASP:O	15:GO:5:SER:N	2.28	0.66
15:AO:56:LYS:O	15:AO:60:GLU:N	2.28	0.66
1:CA:1279:G:H4'	14:CN:31:HIS:CD2	2.30	0.66
33:DA:532:A:N6	35:DC:192:THR:O	2.29	0.66
1:CA:1153:C:OP2	59:CA:3355:HOH:O	2.14	0.66
5:EE:44:ARG:HG3	5:EE:44:ARG:HH21	1.61	0.66
4:AD:118:PHE:HD1	4:AD:119:ALA:H	1.42	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2033:A:OP1	59:CA:3476:HOH:O	2.14	0.66
39:BG:146:GLU:HA	39:BG:149:LYS:HE2	1.78	0.66
33:FA:608:A:OP2	59:FA:1852:HOH:O	2.13	0.66
33:FA:33:A:O2'	44:FL:29:GLN:OE1	2.05	0.66
1:GA:1808:A:N1	24:GX:27:ARG:HD2	2.11	0.66
32:E5:73:LYS:HG2	32:E5:117:LEU:HD21	1.77	0.66
32:E5:33:VAL:N	32:E5:36:ASP:OD2	2.29	0.66
34:FB:182:VAL:N	34:FB:196:ASP:OD2	2.29	0.66
1:EA:1789:A:OP2	3:EC:220:ARG:NH1	2.27	0.66
33:FA:1491:G:H2'	55:FW:6:5OH:HA	1.78	0.66
23:AW:49:ASN:ND2	23:AW:50:VAL:O	2.29	0.65
23:GW:49:ASN:ND2	23:GW:79:ILE:O	2.28	0.65
55:BW:3:SER:O	55:BW:5:UAL:N	2.29	0.65
1:AA:370:G:OP2	59:AA:3552:HOH:O	2.14	0.65
33:DA:515:G:N7	59:DA:1844:HOH:O	2.29	0.65
46:FN:52:PRO:O	46:FN:53:ARG:HB2	1.96	0.65
33:HA:1468:A:H2'	33:HA:1469:C:H5'	1.77	0.65
1:GA:2062:A:OP1	59:GA:3492:HOH:O	2.13	0.65
1:GA:1239:G:OP1	59:GA:3692:HOH:O	2.14	0.65
43:FK:127:ARG:O	53:FU:34:ARG:NH1	2.29	0.65
1:GA:2269:G:OP1	59:GA:3507:HOH:O	2.14	0.65
23:CW:9:THR:HG23	23:CW:10:ARG:HD3	1.76	0.65
1:CA:2306:C:N4	6:CF:38:GLY:O	2.28	0.65
54:BV:560:GLN:OE1	54:BV:560:GLN:N	2.30	0.65
1:AA:2676:C:O2	1:AA:2732:G:N2	2.29	0.65
6:EF:28:PRO:HB2	6:EF:168:LEU:HD23	1.77	0.65
21:CU:98:ASN:O	21:CU:100:GLU:N	2.29	0.65
2:EB:87:U:H3'	2:EB:88:C:H5'	1.77	0.65
33:FA:483:C:O2	48:FP:13:LYS:NZ	2.28	0.65
45:FM:114:LYS:HB2	45:FM:115:PRO:HD3	1.77	0.65
1:GA:328:U:O2'	21:GU:68:ASN:OD1	2.11	0.65
33:BA:1126:U:O4	42:BJ:9:ARG:NH1	2.28	0.65
4:GD:118:PHE:O	4:GD:120:GLY:N	2.29	0.65
1:EA:1187:G:H5''	18:ER:83:TYR:CE2	2.30	0.65
15:GO:49:VAL:HG21	15:GO:82:ALA:HA	1.78	0.65
17:GQ:91:ARG:HE	17:GQ:93:ILE:CG2	2.10	0.65
37:FE:115:LEU:HD23	37:FE:123:VAL:HG21	1.78	0.65
1:GA:963:U:OP2	59:GA:3352:HOH:O	2.13	0.65
33:HA:1505:G:OP1	59:HA:1800:HOH:O	2.12	0.65
1:GA:823:C:N3	1:GA:834:G:N2	2.38	0.65
52:BT:30:THR:HA	52:BT:33:LYS:HG3	1.77	0.65
1:CA:450:G:OP2	59:CA:3238:HOH:O	2.13	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FL:63:VAL:HG21	44:FL:95:TYR:CE1	2.31	0.65
14:GN:73:ASN:HA	14:GN:76:VAL:HG12	1.78	0.65
1:CA:2438:U:O2'	1:CA:2440:C:OP1	2.12	0.65
43:HK:125:LYS:O	53:HU:34:ARG:NH2	2.29	0.65
33:FA:553:A:O2'	44:FL:26:ALA:O	2.14	0.65
33:FA:351:G:OP1	52:FT:3:ASN:N	2.29	0.65
1:AA:624:C:O2'	1:AA:657:U:OP1	2.15	0.65
33:BA:1197:A:OP1	59:BA:1829:HOH:O	2.13	0.65
33:DA:1433:A:OP2	59:DA:1829:HOH:O	2.13	0.65
33:HA:922:G:H4'	37:HE:25:VAL:HA	1.79	0.65
33:FA:1310:G:OP2	45:FM:87:ARG:NH2	2.29	0.65
33:BA:878:A:OP2	40:BH:80:ARG:NH1	2.30	0.65
1:EA:1655:A:H5'	4:ED:118:PHE:CD1	2.31	0.65
53:DU:12:PHE:CE1	53:DU:16:LEU:HD12	2.30	0.65
1:CA:1262:A:OP2	19:CS:99:ARG:NH2	2.29	0.65
1:GA:136:G:H1	1:GA:143:C:H42	1.42	0.65
1:GA:2058:A:OP1	59:GA:3273:HOH:O	2.14	0.65
44:HL:34:CYS:HA	44:HL:55:VAL:HA	1.79	0.65
10:AJ:81:ILE:HG13	10:AJ:82:GLY:N	2.12	0.65
20:GT:12:ARG:HH11	20:GT:12:ARG:HG2	1.61	0.65
43:BK:25:ALA:N	43:BK:87:LYS:O	2.27	0.65
40:FH:3:MET:HE1	40:FH:6:PRO:HA	1.79	0.65
33:HA:1033:G:H2'	33:HA:1034:G:H5'	1.78	0.65
33:DA:204:G:H3'	33:DA:205:A:C5'	2.26	0.65
3:GC:255:LYS:O	3:GC:257:ARG:N	2.30	0.65
5:CE:15:SER:N	5:CE:197:GLU:OE2	2.30	0.65
1:CA:2547:A:H2'	1:CA:2548:U:C6	2.31	0.65
1:AA:587:C:OP2	12:AL:21:ARG:NH1	2.29	0.65
1:CA:2469:A:O3'	13:CM:55:ARG:NH1	2.30	0.65
33:FA:1229:A:OP2	45:FM:113:ARG:NH1	2.29	0.65
33:FA:491:G:OP1	36:FD:148:LYS:NZ	2.30	0.65
55:DW:5:UAL:O	55:DW:6:5OH:NP	2.29	0.65
36:HD:30:THR:HG22	36:HD:31:LYS:H	1.60	0.65
1:AA:1248:G:OP2	5:AE:44:ARG:NH1	2.29	0.65
17:GQ:65:ASN:OD1	17:GQ:69:ARG:NH2	2.28	0.65
23:EW:70:VAL:C	23:EW:71:LYS:HD2	2.17	0.65
1:AA:1437:C:H2'	1:AA:1438:U:C6	2.31	0.65
1:AA:1913:A:O2'	55:BW:3:SER:O	2.13	0.65
1:EA:2478:A:H5'	31:E4:32:LYS:HD3	1.79	0.65
33:FA:981:U:OP1	46:FN:9:ARG:NH1	2.29	0.65
5:CE:29:HIS:HD2	12:CL:8:PRO:CA	2.09	0.65
33:FA:363:A:OP2	59:FA:1892:HOH:O	2.13	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1332:G:OP1	59:AA:3754:HOH:O	2.14	0.65
4:ED:91:THR:O	4:ED:93:GLY:N	2.29	0.65
1:AA:1444:G:OP2	59:AA:3628:HOH:O	2.15	0.65
2:EB:101:A:N7	59:EB:1318:HOH:O	2.29	0.65
33:DA:131:A:H2'	33:DA:132:C:C6	2.32	0.65
37:DE:41:ASP:OD1	37:DE:42:GLY:N	2.30	0.65
1:CA:2016:U:H2'	1:CA:2017:U:C6	2.32	0.65
44:FL:68:GLY:O	44:FL:99:ARG:NH1	2.29	0.65
54:HV:512:ARG:HD3	54:HV:589:SER:HB3	1.79	0.65
41:FI:40:GLY:HA2	41:FI:45:ARG:HD3	1.79	0.65
12:EL:110:VAL:O	12:EL:111:ILE:HB	1.97	0.65
46:FN:30:ILE:O	46:FN:35:ASN:ND2	2.30	0.65
1:CA:2757:A:N1	7:CG:66:THR:HG21	2.12	0.65
1:AA:2356:U:H4'	23:AW:16:GLU:HG3	1.79	0.65
33:BA:1513:A:H2'	33:BA:1514:G:C8	2.31	0.65
14:AN:20:MET:HE1	14:AN:40:LYS:HG2	1.79	0.65
15:EO:76:LYS:NZ	15:EO:80:GLU:OE2	2.29	0.64
1:CA:1332:G:OP1	59:CA:3750:HOH:O	2.15	0.64
54:DV:505:HIS:HB3	54:DV:516:GLY:H	1.61	0.64
1:GA:141:G:N2	20:GT:1:MET:O	2.30	0.64
46:HN:49:GLN:N	46:HN:49:GLN:OE1	2.29	0.64
16:CP:52:ARG:HH11	16:CP:52:ARG:HG3	1.60	0.64
1:GA:822:G:OP1	59:GA:3338:HOH:O	2.14	0.64
19:AS:24:ILE:HG22	19:AS:71:VAL:HG21	1.79	0.64
33:HA:814:A:OP2	59:HA:1756:HOH:O	2.15	0.64
33:BA:1256:A:O2'	33:BA:1278:G:O6	2.11	0.64
7:GG:82:PHE:O	7:GG:84:LYS:NZ	2.26	0.64
33:HA:1101:A:H4'	33:HA:1102:A:O5'	1.98	0.64
53:HU:41:PRO:O	53:HU:45:ARG:N	2.26	0.64
50:DR:41:PRO:HB2	50:DR:43:ARG:HG2	1.79	0.64
41:BI:89:GLU:HG3	41:BI:90:TYR:N	2.12	0.64
29:C2:1:MET:SD	29:C2:2:LYS:N	2.64	0.64
32:A5:24:SER:HB3	32:A5:116:GLU:OE2	1.97	0.64
1:GA:100:U:H4'	1:GA:101:A:O5'	1.98	0.64
1:AA:1271:G:OP2	59:AA:3382:HOH:O	2.13	0.64
1:CA:862:G:OP2	59:CA:3712:HOH:O	2.15	0.64
54:HV:8:ALA:O	54:HV:288:SER:OG	2.14	0.64
1:GA:876:C:H4'	1:GA:877:A:OP1	1.96	0.64
33:DA:324:G:O6	59:DA:1840:HOH:O	2.13	0.64
1:EA:787:C:OP1	59:EA:3751:HOH:O	2.15	0.64
1:EA:2714:G:OP2	59:EA:3546:HOH:O	2.15	0.64
1:EA:141:G:N1	20:ET:1:MET:O	2.31	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:517:C:OP2	27:G0:9:ARG:NH2	2.30	0.64
1:EA:161:A:H3'	1:EA:162:U:H5''	1.80	0.64
33:DA:579:A:O2'	47:DO:54:ARG:NH1	2.31	0.64
23:EW:39:GLN:HB2	23:EW:41:GLY:O	1.98	0.64
16:AP:50:ARG:HG2	16:AP:57:ALA:N	2.12	0.64
5:AE:128:ALA:O	5:AE:130:LYS:N	2.30	0.64
11:EK:108:ARG:NH2	16:EP:33:GLU:O	2.30	0.64
1:CA:2661:G:C6	1:CA:2662:A:C2	2.85	0.64
23:CW:35:ILE:O	23:CW:37:VAL:N	2.30	0.64
7:AG:1:SER:O	7:AG:4:ALA:N	2.28	0.64
1:EA:2145:C:H3'	1:EA:2146:C:H5''	1.80	0.64
1:CA:572:A:OP2	18:CR:80:ARG:NH2	2.29	0.64
1:EA:1845:G:OP1	3:EC:255:LYS:NZ	2.30	0.64
42:HJ:8:ILE:HG12	42:HJ:100:ILE:HG12	1.78	0.64
1:AA:1970:A:OP2	59:AA:3470:HOH:O	2.14	0.64
4:GD:46:ARG:NH2	4:GD:88:GLU:OE2	2.29	0.64
33:HA:1152:A:OP1	42:HJ:70:HIS:ND1	2.30	0.64
32:E5:26:VAL:HG11	32:E5:77:VAL:HG11	1.79	0.64
17:AQ:91:ARG:HE	17:AQ:93:ILE:CG2	2.11	0.64
15:AO:3:LYS:HG3	15:AO:4:LYS:H	1.62	0.64
10:GJ:80:HIS:O	10:GJ:82:GLY:N	2.30	0.64
1:AA:2365:G:H4'	23:AW:59:PHE:CZ	2.32	0.64
1:CA:2353:G:H1'	23:CW:30:VAL:CG1	2.27	0.64
1:EA:2346:A:H3'	1:EA:2347:C:H5''	1.80	0.64
33:HA:516:U:O2'	33:HA:519:C:N3	2.29	0.64
32:E5:93:ALA:HB3	32:E5:95:LEU:HD23	1.79	0.64
16:GP:50:ARG:NE	16:GP:57:ALA:O	2.28	0.64
33:BA:1492:A:OP2	55:BW:1:KBE:NZ	2.31	0.64
1:CA:1782:U:OP1	59:CA:3682:HOH:O	2.14	0.64
24:AX:70:LEU:O	24:AX:74:GLY:N	2.30	0.64
32:A5:100:ALA:HB2	32:A5:125:ARG:HE	1.63	0.64
33:BA:58:C:O2'	33:BA:388:G:N7	2.25	0.64
16:EP:50:ARG:HG3	16:EP:57:ALA:O	1.98	0.64
17:EQ:63:ARG:HH12	17:EQ:96:ASP:HA	1.63	0.64
32:A5:56:ARG:O	32:A5:57:ASN:ND2	2.30	0.64
16:CP:50:ARG:HG2	16:CP:57:ALA:N	2.12	0.64
54:FV:24:THR:HB	58:FV:801:GCP:O2B	1.98	0.64
1:EA:1658:C:OP1	59:EA:3651:HOH:O	2.14	0.64
1:GA:1080:A:O2'	9:GI:126:ARG:NE	2.31	0.64
23:AW:9:THR:OG1	23:AW:10:ARG:N	2.28	0.64
11:EK:70:ARG:NH1	11:EK:74:GLY:O	2.31	0.64
44:BL:83:ARG:HB2	44:BL:98:VAL:HG23	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1828:G:OP2	59:AA:3792:HOH:O	2.15	0.64
1:CA:2478:A:H5'	31:C4:32:LYS:HD3	1.80	0.64
1:AA:42:A:H2'	1:AA:43:G:H5'	1.79	0.64
3:EC:16:VAL:H	3:EC:203:VAL:HG12	1.62	0.64
1:CA:512:G:N7	59:CA:3758:HOH:O	2.30	0.64
33:FA:880:C:OP1	44:FL:5:ASN:ND2	2.31	0.64
1:CA:1813:G:H1'	3:CC:49:THR:HG21	1.79	0.64
34:FB:57:ASN:ND2	34:FB:219:THR:O	2.31	0.64
48:BP:4:ILE:HG13	48:BP:21:VAL:CG1	2.28	0.64
1:EA:1154:G:OP2	17:EQ:57:ARG:NH1	2.30	0.64
23:GW:19:ARG:HA	23:GW:34:SER:HA	1.79	0.64
1:AA:2311:A:H1'	6:AF:84:ILE:HD11	1.80	0.64
1:EA:2478:A:OP2	31:E4:2:LYS:NZ	2.28	0.64
6:CF:35:LEU:HB3	6:CF:153:ILE:HG22	1.79	0.64
33:FA:204:G:H3'	33:FA:205:A:H5''	1.79	0.64
1:AA:2289:G:N2	1:AA:2344:U:O2	2.31	0.64
1:CA:2499:C:OP1	59:CA:3678:HOH:O	2.15	0.64
16:CP:50:ARG:CG	16:CP:57:ALA:H	2.11	0.64
1:CA:1805:A:N3	3:CC:49:THR:OG1	2.30	0.64
1:AA:1088:A:O2'	1:AA:1089:A:OP1	2.15	0.64
7:AG:118:ALA:O	7:AG:120:ILE:N	2.28	0.64
1:EA:2518:A:OP2	59:EA:3533:HOH:O	2.15	0.64
1:AA:948:C:O2	1:AA:984:A:O2'	2.16	0.64
1:GA:2478:A:H5'	31:G4:32:LYS:HD3	1.79	0.64
1:AA:1568:G:OP2	3:AC:62:ARG:NH1	2.31	0.64
44:DL:34:CYS:HA	44:DL:55:VAL:HA	1.79	0.64
6:EF:33:ILE:HG23	6:EF:153:ILE:HD11	1.79	0.64
33:FA:1031:C:O2'	33:FA:1032:G:N3	2.28	0.64
1:AA:2346:A:H3'	1:AA:2347:C:H5''	1.80	0.64
32:A5:27:VAL:HG13	32:A5:83:ALA:HB3	1.79	0.63
1:AA:1131:G:OP1	10:AJ:82:GLY:HA2	1.98	0.63
1:AA:1723:G:O6	1:AA:1737:G:O2'	2.09	0.63
1:CA:161:A:H3'	1:CA:162:U:H5''	1.79	0.63
20:GT:8:LEU:HD12	20:GT:46:ALA:HA	1.79	0.63
54:BV:526:GLU:O	54:BV:528:GLY:N	2.31	0.63
1:EA:2205:A:OP1	3:EC:67:LYS:NZ	2.29	0.63
36:FD:116:GLN:O	36:FD:120:HIS:ND1	2.31	0.63
33:DA:38:G:N1	33:DA:397:A:OP1	2.28	0.63
17:GQ:63:ARG:NH1	17:GQ:95:ALA:O	2.29	0.63
43:BK:24:HIS:HB3	43:BK:31:ILE:HG13	1.81	0.63
1:AA:1010:A:OP2	59:AA:3771:HOH:O	2.15	0.63
11:EK:113:MET:SD	11:EK:116:ILE:HD11	2.37	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2103:C:H2'	1:AA:2104:C:H5'	1.79	0.63
1:GA:189:G:O6	1:GA:205:G:O2'	2.09	0.63
33:HA:143:A:H5'	33:HA:144:G:H5'	1.79	0.63
1:CA:685:A:O2'	1:CA:773:U:O4	2.11	0.63
1:GA:161:A:H3'	1:GA:162:U:H5''	1.81	0.63
19:GS:18:ARG:O	19:GS:19:LEU:HB2	1.97	0.63
1:CA:1187:G:H5''	18:CR:83:TYR:CE2	2.33	0.63
52:BT:3:ASN:OD1	52:BT:4:ILE:N	2.31	0.63
45:BM:11:ASP:HA	45:BM:45:ILE:HB	1.81	0.63
45:HM:3:ARG:HD2	45:HM:9:ILE:HG22	1.81	0.63
7:CG:1:SER:O	7:CG:3:VAL:N	2.32	0.63
3:CC:257:ARG:NH1	3:CC:263:ASP:OD1	2.31	0.63
1:GA:163:C:O2'	1:GA:164:C:O5'	2.16	0.63
16:AP:50:ARG:HG2	16:AP:57:ALA:H	1.63	0.63
28:E1:3:GLY:O	28:E1:5:ARG:N	2.32	0.63
54:DV:422:PRO:O	54:DV:424:THR:N	2.32	0.63
11:EK:80:ASP:OD2	16:EP:61:ARG:NH1	2.31	0.63
16:EP:63:ILE:HA	16:EP:68:GLY:HA2	1.81	0.63
45:HM:33:ILE:HA	45:HM:59:GLU:HG2	1.80	0.63
26:GZ:40:THR:HG23	26:GZ:43:ILE:H	1.62	0.63
1:CA:2387:U:O2'	23:CW:38:ARG:NH2	2.31	0.63
23:EW:37:VAL:HA	23:EW:39:GLN:HG2	1.79	0.63
1:CA:2270:A:OP1	59:CA:3512:HOH:O	2.16	0.63
9:GI:122:GLU:HG2	9:GI:126:ARG:HH12	1.63	0.63
1:AA:2406:A:N3	12:AL:69:ARG:NH2	2.46	0.63
20:ET:8:LEU:HD12	20:ET:46:ALA:HA	1.80	0.63
48:HP:46:LYS:HG3	48:HP:47:GLU:H	1.64	0.63
1:GA:2346:A:H3'	1:GA:2347:C:H5''	1.80	0.63
54:FV:538:ASN:ND2	54:FV:550:ILE:HG21	2.13	0.63
35:HC:71:ALA:HA	35:HC:106:VAL:HG22	1.81	0.63
33:BA:417:G:OP2	59:BA:1717:HOH:O	2.15	0.63
3:CC:68:ARG:O	3:CC:188:ARG:NH2	2.31	0.63
33:BA:684:U:O2	43:BK:41:ALA:HB3	1.99	0.63
1:AA:1079:C:C2'	1:AA:1080:A:H5'	2.29	0.63
1:AA:27:G:O2'	1:AA:28:A:OP2	2.17	0.63
33:DA:1229:A:OP2	45:DM:113:ARG:NH1	2.32	0.63
33:BA:811:C:O2'	33:BA:901:A:N1	2.30	0.63
33:DA:1101:A:H4'	33:DA:1102:A:O5'	1.98	0.63
24:CX:70:LEU:O	24:CX:74:GLY:N	2.31	0.63
48:FP:10:GLY:HA3	48:FP:15:PRO:HA	1.81	0.63
5:GE:149:ILE:HD11	5:GE:172:ALA:HA	1.81	0.63
33:FA:1376:U:OP2	39:FG:25:LYS:NZ	2.29	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:19:PHE:N	16:AP:19:PHE:CD1	2.67	0.63
23:EW:37:VAL:HG13	23:EW:55:ASP:O	1.98	0.63
23:EW:39:GLN:HG3	23:EW:40:ARG:H	1.64	0.63
23:AW:28:GLU:O	23:AW:30:VAL:N	2.31	0.63
37:HE:111:MET:HB2	37:HE:140:THR:HG21	1.80	0.63
9:AI:14:ALA:HB3	9:AI:50:LYS:HA	1.81	0.63
10:EJ:80:HIS:O	10:EJ:82:GLY:N	2.32	0.63
4:ED:106:LYS:HB3	4:ED:206:ALA:HB3	1.81	0.63
1:CA:2109:U:H2'	1:CA:2110:G:H5''	1.79	0.63
33:FA:88:U:H2'	33:FA:89:U:C6	2.33	0.63
1:EA:1913:A:C6	54:FV:591:LEU:HG	2.34	0.63
33:FA:1452:C:H4'	33:FA:1453:G:O5'	1.99	0.63
33:BA:1522:U:OP1	43:BK:128:ARG:NH2	2.32	0.63
1:EA:572:A:OP2	18:ER:80:ARG:NH2	2.31	0.63
37:HE:82:GLN:HG2	37:HE:150:PRO:HD3	1.81	0.63
3:EC:80:LEU:HD11	3:EC:109:LEU:HG	1.81	0.63
1:EA:2547:A:H2'	1:EA:2548:U:C6	2.33	0.63
54:FV:62:THR:O	59:FV:901:HOH:O	2.16	0.63
38:DF:81:ASN:OD1	38:DF:83:ALA:N	2.30	0.63
1:AA:301:G:OP2	21:AU:81:ARG:NH1	2.29	0.63
17:EQ:91:ARG:HH21	17:EQ:93:ILE:HG21	1.64	0.62
10:EJ:64:VAL:CG1	10:EJ:68:LYS:HB2	2.29	0.62
21:AU:98:ASN:O	21:AU:98:ASN:ND2	2.24	0.62
1:CA:141:G:N2	20:CT:1:MET:O	2.32	0.62
43:BK:35:THR:HA	43:BK:42:LEU:HG	1.81	0.62
1:AA:100:U:H4'	1:AA:101:A:O5'	1.99	0.62
46:FN:49:GLN:N	46:FN:49:GLN:OE1	2.32	0.62
23:EW:18:LYS:HA	23:EW:36:ILE:HB	1.82	0.62
42:BJ:35:GLN:HG3	42:BJ:36:VAL:H	1.63	0.62
1:CA:2009:A:OP1	19:CS:41:LYS:NZ	2.29	0.62
1:CA:411:G:OP2	1:CA:2406:A:O2'	2.15	0.62
1:GA:244:A:OP2	30:G3:7:ARG:NH2	2.30	0.62
33:BA:702:A:H5''	33:BA:703:G:N7	2.13	0.62
33:DA:1296:C:H4'	33:DA:1302:C:N3	2.14	0.62
16:EP:50:ARG:CB	16:EP:57:ALA:H	2.13	0.62
4:AD:149:ASN:OD1	4:AD:150:GLN:N	2.31	0.62
12:CL:82:LEU:HB2	12:CL:90:VAL:HG21	1.80	0.62
33:BA:276:G:OP1	49:BQ:14:SER:OG	2.13	0.62
52:FT:68:HIS:O	52:FT:69:LYS:NZ	2.33	0.62
36:DD:65:TYR:O	36:DD:115:ARG:NH1	2.33	0.62
33:FA:451:A:H4'	33:FA:452:A:O5'	1.99	0.62
17:EQ:91:ARG:HH11	18:ER:11:GLN:N	1.97	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1268:A:C2	1:GA:2013:A:C4	2.86	0.62
1:CA:1279:G:H4'	14:CN:31:HIS:HD2	1.64	0.62
33:BA:933:G:O6	39:BG:3:ARG:NH1	2.32	0.62
10:GJ:64:VAL:HG11	10:GJ:69:ARG:HB2	1.81	0.62
26:CZ:8:GLN:O	26:CZ:10:ARG:N	2.32	0.62
33:HA:416:G:OP2	59:HA:1717:HOH:O	2.16	0.62
1:EA:555:G:O2'	1:EA:556:A:OP2	2.16	0.62
33:DA:41:G:H2'	33:DA:42:G:C8	2.35	0.62
1:EA:1918:A:O2'	1:EA:1920:C:N4	2.32	0.62
34:DB:53:LEU:HA	34:DB:56:LEU:HB3	1.81	0.62
6:AF:11:VAL:HA	6:AF:14:LYS:HG2	1.81	0.62
6:AF:27:VAL:O	6:AF:29:ARG:NH1	2.33	0.62
7:CG:46:ASP:OD1	7:CG:47:ASN:N	2.32	0.62
28:A1:26:LYS:HD3	28:A1:52:LYS:HE2	1.82	0.62
36:BD:3:ARG:CZ	36:BD:115:ARG:HD3	2.29	0.62
36:BD:65:TYR:O	36:BD:115:ARG:NH1	2.32	0.62
1:AA:275:C:H3'	1:AA:276:U:H5''	1.82	0.62
1:AA:250:G:C6	1:AA:251:A:C6	2.88	0.62
16:GP:50:ARG:CD	16:GP:51:ASN:N	2.62	0.62
1:EA:1131:G:OP1	10:EJ:82:GLY:HA2	2.00	0.62
42:BJ:5:ARG:HB3	42:BJ:77:VAL:HA	1.82	0.62
3:CC:69:ASN:O	3:CC:71:ASP:N	2.32	0.62
4:ED:102:ALA:HA	4:ED:180:VAL:HG11	1.80	0.62
15:CO:2:ASP:OD1	15:CO:3:LYS:N	2.32	0.62
36:DD:116:GLN:HG2	36:DD:120:HIS:CD2	2.35	0.62
32:A5:94:ARG:O	32:A5:97:LYS:N	2.33	0.62
1:GA:1857:G:O2'	1:GA:1858:A:OP2	2.15	0.62
33:HA:202:G:HO2'	33:HA:468:A:H8	1.45	0.62
33:FA:158:G:H2'	33:FA:159:G:H5'	1.81	0.62
1:EA:726:G:O2'	1:EA:727:A:OP2	2.16	0.62
1:GA:855:G:N3	23:GW:23:LYS:HD2	2.14	0.62
43:BK:23:ILE:HG13	43:BK:86:VAL:HA	1.81	0.62
41:HI:57:MET:N	41:HI:57:MET:SD	2.73	0.62
20:AT:50:LEU:HD23	25:AY:26:PHE:CE2	2.35	0.62
1:EA:1824:G:OP2	59:EA:3653:HOH:O	2.16	0.62
45:BM:54:ASP:HA	45:BM:57:ARG:HB3	1.82	0.62
33:DA:971:G:O6	33:DA:1364:U:O2'	2.13	0.62
35:FC:83:ASP:O	35:FC:86:LYS:HG2	2.00	0.62
1:AA:1378:A:O2'	1:AA:1380:G:N7	2.30	0.62
1:AA:748:G:C8	1:AA:750:A:C8	2.87	0.62
19:CS:69:LEU:HG	19:CS:107:VAL:HG22	1.82	0.62
37:DE:111:MET:CE	37:DE:125:ALA:HB1	2.29	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:1010:U:H2'	33:HA:1011:C:C6	2.35	0.62
40:DH:53:GLY:HA3	40:DH:57:PRO:HA	1.81	0.62
33:BA:1313:U:P	51:BS:6:LYS:HG2	2.40	0.62
37:HE:41:ASP:OD1	37:HE:42:GLY:N	2.33	0.62
54:HV:203:GLU:O	54:HV:205:GLU:N	2.33	0.62
37:FE:97:GLN:HB2	37:FE:124:LEU:HB2	1.81	0.62
32:E5:26:VAL:O	32:E5:27:VAL:HB	1.98	0.62
32:E5:26:VAL:CG1	32:E5:77:VAL:HG11	2.30	0.62
43:HK:125:LYS:O	53:HU:34:ARG:NE	2.33	0.62
37:HE:111:MET:CB	37:HE:140:THR:HG21	2.30	0.62
42:FJ:53:ILE:HG12	42:FJ:61:ALA:HB1	1.82	0.62
35:DC:77:ILE:HA	35:DC:84:VAL:HG23	1.80	0.62
33:HA:1239:A:H61	33:HA:1299:A:H61	1.47	0.62
33:HA:1239:A:N6	33:HA:1299:A:H61	1.98	0.62
1:CA:654:A:N3	1:CA:654:A:H3'	2.14	0.62
4:AD:106:LYS:HB3	4:AD:206:ALA:HB3	1.82	0.62
1:EA:1107:G:H5''	32:E5:58:THR:CG2	2.29	0.62
16:GP:50:ARG:CG	16:GP:57:ALA:H	2.13	0.62
43:BK:15:GLN:HA	43:BK:77:TYR:O	2.00	0.62
1:AA:2543:G:H2'	1:AA:2544:G:C8	2.35	0.62
1:EA:100:U:H4'	1:EA:101:A:O5'	1.99	0.62
33:HA:1329:A:OP1	45:HM:26:GLY:N	2.32	0.62
43:HK:111:THR:HG22	53:HU:5:LYS:HB2	1.81	0.62
6:AF:36:ASN:O	6:AF:151:LEU:HB2	2.00	0.61
11:EK:71:ARG:HG3	11:EK:105:ARG:NH2	2.15	0.61
35:FC:17:PRO:O	35:FC:18:TRP:HB2	2.00	0.61
33:BA:195:A:OP1	52:BT:60:ARG:NH1	2.33	0.61
33:BA:1033:G:H2'	33:BA:1034:G:H5'	1.81	0.61
23:GW:37:VAL:HB	23:GW:38:ARG:HH11	1.64	0.61
1:EA:2429:G:OP2	59:EA:3342:HOH:O	2.16	0.61
35:DC:7:PRO:O	35:DC:11:ARG:NH1	2.32	0.61
38:BF:81:ASN:OD1	38:BF:83:ALA:N	2.33	0.61
34:FB:99:MET:HA	34:FB:106:VAL:HG21	1.82	0.61
33:DA:1119:C:OP1	41:DI:85:ARG:NH1	2.33	0.61
16:CP:50:ARG:CD	16:CP:51:ASN:N	2.64	0.61
1:AA:450:G:O6	59:AA:3243:HOH:O	2.14	0.61
16:EP:50:ARG:HB3	16:EP:57:ALA:H	1.65	0.61
3:AC:255:LYS:O	3:AC:257:ARG:N	2.33	0.61
11:GK:78:ARG:NH1	16:GP:70:GLU:OE2	2.33	0.61
6:CF:1:ALA:HB3	6:CF:4:HIS:HB3	1.83	0.61
1:EA:1913:A:C6	33:FA:1494:G:H5'	2.36	0.61
44:BL:72:HIS:ND1	44:BL:73:ASN:O	2.33	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1665:A:OP2	59:EA:3426:HOH:O	2.16	0.61
1:EA:1784:A:N6	59:EA:3688:HOH:O	2.26	0.61
44:BL:44:LYS:HB3	44:BL:45:PRO:HD3	1.81	0.61
3:EC:144:GLU:HA	3:EC:151:GLY:HA2	1.80	0.61
39:DG:113:ASP:OD2	39:DG:122:ASN:ND2	2.33	0.61
5:AE:4:VAL:HG12	5:AE:6:LYS:H	1.65	0.61
17:EQ:63:ARG:HH22	17:EQ:96:ASP:N	1.98	0.61
23:EW:18:LYS:CA	23:EW:36:ILE:HB	2.30	0.61
23:EW:36:ILE:O	23:EW:39:GLN:NE2	2.34	0.61
54:BV:190:ALA:N	54:BV:205:GLU:O	2.32	0.61
31:E4:36:ARG:HG2	31:E4:37:GLN:H	1.64	0.61
1:AA:2481:G:HO2'	1:AA:2482:A:H8	1.47	0.61
49:BQ:48:ASP:OD2	49:BQ:52:GLU:N	2.33	0.61
36:DD:58:LYS:NZ	36:DD:69:GLU:OE1	2.32	0.61
5:AE:150:THR:HG21	5:AE:153:LEU:HA	1.82	0.61
1:CA:2742:G:OP2	31:C4:24:ARG:NH1	2.30	0.61
25:CY:51:ALA:O	25:CY:55:THR:N	2.33	0.61
32:A5:91:ALA:C	32:A5:93:ALA:H	2.03	0.61
9:GI:79:LEU:HA	9:GI:83:ALA:HB3	1.83	0.61
14:GN:12:ARG:NE	14:GN:20:MET:HE3	2.15	0.61
1:GA:1301:A:OP1	59:GA:3640:HOH:O	2.16	0.61
33:HA:1306:A:H1'	33:HA:1332:A:C4	2.36	0.61
1:CA:1913:A:N7	33:DA:1494:G:H5'	2.15	0.61
44:FL:110:ARG:NH1	44:FL:112:GLN:O	2.33	0.61
1:GA:1778:U:H2'	1:GA:1784:A:N6	2.16	0.61
1:GA:1080:A:H4'	9:GI:126:ARG:HD2	1.83	0.61
33:HA:73:C:H6	33:HA:73:C:H5'	1.66	0.61
1:AA:983:A:OP2	59:AA:3580:HOH:O	2.16	0.61
32:A5:44:ALA:O	32:A5:49:GLY:N	2.33	0.61
14:CN:29:VAL:HG11	14:CN:75:ILE:HG23	1.80	0.61
12:EL:109:LYS:HG2	12:EL:126:ARG:HB3	1.83	0.61
33:HA:1277:C:HO2'	33:HA:1279:G:H8	1.49	0.61
1:CA:1266:G:OP1	27:C0:15:ARG:NE	2.30	0.61
6:GF:15:LEU:HD11	6:GF:168:LEU:HA	1.83	0.61
2:CB:5:U:O2'	2:CB:27:C:O2	2.17	0.61
33:FA:73:C:H6	33:FA:73:C:H5'	1.65	0.61
33:FA:1182:G:H4'	33:FA:1183:U:C5'	2.31	0.61
1:CA:2683:C:O2	11:CK:70:ARG:NH2	2.32	0.61
10:GJ:39:LYS:HA	10:GJ:43:GLU:HG3	1.83	0.61
10:EJ:4:PHE:N	10:EJ:44:TYR:OH	2.34	0.61
23:CW:39:GLN:NE2	23:CW:56:HIS:O	2.34	0.61
5:GE:128:ALA:O	5:GE:130:LYS:N	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:42:C:OP1	6:CF:63:LYS:NZ	2.26	0.61
46:FN:61:ARG:O	46:FN:62:ASN:HB2	1.99	0.61
1:CA:2297:A:N1	1:CA:2321:U:H5	1.98	0.61
6:EF:33:ILE:CG2	6:EF:153:ILE:HD11	2.29	0.61
1:GA:1440:U:H2'	1:GA:1441:G:H8	1.65	0.61
40:BH:10:MET:HE1	40:BH:33:LYS:HA	1.83	0.61
1:GA:558:U:H5''	10:GJ:111:LYS:HE3	1.82	0.61
6:GF:105:ILE:HG12	6:GF:138:PRO:HG3	1.83	0.61
37:HE:104:GLY:CA	37:HE:122:ASN:HA	2.31	0.61
1:EA:84:A:H4'	1:EA:85:G:O5'	2.01	0.61
34:HB:20:ARG:O	34:HB:22:TRP:N	2.33	0.61
1:CA:1731:G:H1'	1:CA:1733:G:C8	2.36	0.61
33:FA:461:A:N3	33:FA:461:A:H3'	2.15	0.61
22:CV:72:VAL:HG12	22:CV:93:ARG:HA	1.82	0.61
1:EA:2448:A:OP1	59:EA:3683:HOH:O	2.16	0.61
32:E5:59:LEU:HD23	32:E5:62:ARG:HE	1.66	0.61
9:GI:12:VAL:HG22	9:GI:23:VAL:HG13	1.81	0.61
17:AQ:4:LYS:HG3	17:AQ:5:ARG:H	1.66	0.61
34:FB:69:VAL:HG23	34:FB:162:VAL:HB	1.82	0.61
33:DA:814:A:OP2	59:DA:1759:HOH:O	2.16	0.61
1:CA:2346:A:H3'	1:CA:2347:C:H5''	1.82	0.61
17:AQ:91:ARG:HH21	17:AQ:93:ILE:HG21	1.66	0.61
16:AP:50:ARG:CD	16:AP:57:ALA:H	2.13	0.61
1:GA:2324:U:H3'	1:GA:2325:G:C5'	2.31	0.61
44:BL:110:ARG:NH1	44:BL:112:GLN:O	2.34	0.61
1:AA:1336:A:P	20:AT:68:LYS:NZ	2.74	0.61
1:GA:1003:G:O2'	1:GA:1010:A:N1	2.26	0.61
42:HJ:73:LEU:O	42:HJ:75:ASP:N	2.34	0.61
33:BA:1029:U:O2'	33:BA:1033:G:N2	2.34	0.61
38:BF:74:LEU:O	38:BF:77:THR:OG1	2.17	0.61
37:BE:104:GLY:CA	37:BE:122:ASN:HA	2.31	0.61
38:BF:38:ARG:HB3	38:BF:63:ASN:HB2	1.82	0.61
50:HR:54:GLN:HA	50:HR:57:ARG:HD3	1.81	0.61
33:BA:922:G:H4'	37:BE:25:VAL:HA	1.83	0.61
36:FD:66:GLY:O	36:FD:115:ARG:NH2	2.34	0.61
54:DV:156:ASN:O	54:DV:160:THR:OG1	2.19	0.61
32:A5:24:SER:C	32:A5:116:GLU:HB3	2.20	0.60
42:HJ:37:ARG:CZ	42:HJ:76:ILE:HA	2.31	0.60
31:C4:36:ARG:HG2	31:C4:37:GLN:H	1.66	0.60
14:AN:73:ASN:HA	14:AN:76:VAL:HG12	1.82	0.60
54:DV:79:TYR:OH	54:DV:284:ASP:OD1	2.13	0.60
33:BA:1279:G:H2'	33:BA:1279:G:N3	2.16	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DJ:37:ARG:NH1	42:DJ:75:ASP:OD2	2.34	0.60
6:EF:10:GLU:O	6:EF:12:VAL:N	2.34	0.60
10:EJ:128:ASN:ND2	10:EJ:129:GLU:OE2	2.34	0.60
1:CA:1901:A:OP2	3:CC:252:LYS:NZ	2.27	0.60
33:DA:429:U:O3'	36:DD:22:LYS:NZ	2.34	0.60
42:FJ:32:THR:HG21	42:FJ:83:THR:HA	1.82	0.60
33:HA:324:G:N7	59:HA:1842:HOH:O	2.31	0.60
32:A5:25:ALA:C	32:A5:116:GLU:OE1	2.39	0.60
46:HN:61:ARG:O	46:HN:62:ASN:HB2	2.01	0.60
41:BI:57:MET:CA	41:BI:60:LYS:HG2	2.31	0.60
16:GP:50:ARG:CZ	16:GP:56:SER:HB3	2.30	0.60
1:GA:2478:A:OP2	31:G4:2:LYS:NZ	2.34	0.60
54:FV:538:ASN:HD22	54:FV:550:ILE:HG21	1.65	0.60
33:DA:299:G:O6	59:DA:1836:HOH:O	2.15	0.60
1:CA:1425:G:H2'	1:CA:1426:G:C8	2.36	0.60
40:HH:5:ASP:OD2	40:HH:77:ARG:NH1	2.34	0.60
33:BA:460:A:N6	33:BA:472:U:O4	2.35	0.60
5:AE:148:ILE:HA	5:AE:187:VAL:HB	1.81	0.60
1:EA:2707:U:O2	14:EN:71:ARG:NH1	2.34	0.60
1:EA:2757:A:N1	7:EG:66:THR:HG21	2.16	0.60
2:GB:87:U:H3'	2:GB:88:C:H5'	1.83	0.60
4:GD:4:LEU:HD23	4:GD:101:PHE:CE2	2.36	0.60
1:GA:2450:A:OP2	59:GA:3677:HOH:O	2.15	0.60
7:EG:84:LYS:HG3	7:EG:132:LEU:N	2.16	0.60
32:A5:24:SER:HB3	32:A5:116:GLU:CG	2.25	0.60
54:BV:221:ASN:HA	54:BV:224:GLU:HB3	1.83	0.60
23:CW:24:ARG:NH1	23:CW:65:LYS:HB2	2.16	0.60
33:BA:204:G:H3'	33:BA:205:A:C5'	2.31	0.60
4:GD:124:ARG:HD2	4:GD:125:TRP:NE1	2.16	0.60
12:EL:77:ILE:HD11	12:EL:108:ALA:HB1	1.84	0.60
1:GA:875:G:H2'	1:GA:876:C:H5'	1.82	0.60
3:EC:16:VAL:N	3:EC:203:VAL:HG12	2.17	0.60
38:FF:91:ARG:O	38:FF:92:THR:OG1	2.18	0.60
7:CG:8:VAL:HG13	7:CG:9:VAL:H	1.66	0.60
34:FB:163:ILE:HG23	34:FB:164:ASP:H	1.66	0.60
1:EA:1064:C:H4'	9:EI:90:GLY:H	1.66	0.60
1:AA:2550:G:OP1	59:AA:3715:HOH:O	2.16	0.60
1:GA:1088:A:O2'	1:GA:1089:A:P	2.59	0.60
54:HV:632:ILE:HD12	54:HV:642:LEU:HD22	1.83	0.60
16:GP:50:ARG:HG2	16:GP:57:ALA:N	2.16	0.60
1:GA:1279:G:H4'	14:GN:31:HIS:CD2	2.35	0.60
33:BA:1166:G:O2'	33:BA:1169:A:N6	2.34	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2352:A:C6	23:EW:30:VAL:HG11	2.37	0.60
6:CF:35:LEU:CD1	6:CF:88:VAL:HB	2.32	0.60
24:GX:42:GLU:OE2	24:GX:77:TYR:OH	2.20	0.60
33:FA:1228:C:P	45:FM:107:ARG:HH22	2.24	0.60
33:BA:1417:G:O6	59:BA:1795:HOH:O	2.12	0.60
26:EZ:8:GLN:O	26:EZ:9:THR:HG22	2.01	0.60
54:HV:560:GLN:N	54:HV:560:GLN:OE1	2.32	0.60
17:EQ:60:TRP:CE2	17:EQ:93:ILE:HB	2.36	0.60
54:DV:222:LEU:O	54:DV:226:ALA:N	2.35	0.60
36:DD:13:ARG:NH1	36:DD:37:ALA:O	2.34	0.60
1:GA:137:U:HO2'	1:GA:138:U:P	2.24	0.60
1:GA:833:A:H2'	1:GA:834:G:C8	2.36	0.60
33:FA:880:C:OP2	44:FL:3:THR:HG21	2.01	0.60
9:CI:25:PRO:HB3	54:DV:649:VAL:HA	1.84	0.60
43:HK:26:SER:OG	43:HK:29:ASN:O	2.18	0.60
1:GA:528:A:C2	1:GA:2043:C:H4'	2.37	0.60
32:E5:127:ALA:HA	32:E5:129:LEU:HG	1.82	0.60
33:BA:660:C:H2'	33:BA:661:G:O4'	2.02	0.60
1:AA:161:A:H2	1:AA:2217:G:HO2'	1.49	0.60
33:HA:1304:G:OP2	59:HA:1790:HOH:O	2.16	0.60
4:CD:118:PHE:HD1	4:CD:119:ALA:H	1.49	0.60
1:GA:1828:G:OP1	59:GA:3789:HOH:O	2.16	0.60
33:FA:62:U:O2'	33:FA:379:C:O2	2.18	0.60
25:CY:6:LEU:CD1	25:CY:56:LEU:HD11	2.32	0.60
47:FO:39:LEU:O	47:FO:42:HIS:N	2.35	0.60
34:DB:22:TRP:CG	34:DB:23:ASN:N	2.69	0.60
3:GC:69:ASN:O	3:GC:71:ASP:N	2.34	0.60
38:BF:47:LEU:HD11	38:BF:51:ILE:HG22	1.82	0.60
1:EA:855:G:N3	23:EW:23:LYS:HD2	2.17	0.60
23:EW:37:VAL:HB	23:EW:38:ARG:HH11	1.65	0.60
12:GL:93:ASN:O	12:GL:95:LEU:N	2.34	0.60
1:EA:2742:G:OP1	31:E4:36:ARG:HD3	2.01	0.60
11:EK:105:ARG:HD3	11:EK:105:ARG:H	1.67	0.60
33:HA:1147:C:O2	41:HI:18:ARG:NH1	2.34	0.60
14:AN:56:LYS:HD2	14:AN:88:ALA:HA	1.83	0.60
33:BA:335:C:O2'	33:BA:1433:A:N3	2.33	0.60
33:BA:1264:U:H2'	33:BA:1265:C:C6	2.36	0.60
1:EA:1028:A:N6	1:EA:1125:G:H2'	2.16	0.60
54:DV:78:GLN:NE2	54:DV:280:ASP:OD2	2.35	0.60
34:HB:32:GLY:HA3	34:HB:39:ILE:H	1.65	0.60
33:DA:518:C:H2'	33:DA:530:G:C8	2.36	0.60
4:ED:29:VAL:HB	4:ED:98:VAL:HG22	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:19:PRO:CG	9:AI:23:VAL:HG23	2.31	0.60
1:GA:1779:U:H5	1:GA:1784:A:N7	1.99	0.60
1:GA:2353:G:H1'	23:GW:30:VAL:CG1	2.31	0.60
1:EA:1084:A:N6	1:EA:1085:A:N1	2.50	0.60
19:CS:24:ILE:HG13	19:CS:36:LEU:HD11	1.82	0.60
33:DA:1182:G:H4'	33:DA:1183:U:C5'	2.31	0.60
25:GY:32:ALA:HB2	25:GY:37:LEU:HD12	1.83	0.60
1:AA:654:A:H3'	1:AA:654:A:N3	2.17	0.60
1:EA:1386:C:H2'	1:EA:1387:A:C8	2.36	0.60
49:HQ:12:VAL:O	49:HQ:14:SER:N	2.32	0.60
3:CC:91:ALA:HB3	3:CC:103:ILE:HG22	1.83	0.60
1:CA:1156:A:OP2	59:CA:3359:HOH:O	2.17	0.60
1:GA:450:G:O6	59:GA:3238:HOH:O	2.13	0.60
9:CI:91:LYS:O	9:CI:135:MET:HE1	2.02	0.60
1:CA:1913:A:N7	33:DA:1494:G:C4'	2.64	0.60
1:AA:85:G:OP1	21:AU:6:ARG:N	2.35	0.60
32:E5:91:ALA:HB1	32:E5:130:PRO:HB3	1.84	0.60
33:DA:363:A:H1'	44:DL:29:GLN:NE2	2.17	0.60
33:BA:1320:C:O2	51:BS:36:ARG:NH1	2.35	0.60
33:FA:1468:A:C2'	33:FA:1469:C:H5'	2.32	0.60
1:GA:1804:C:OP1	3:GC:256:THR:OG1	2.20	0.60
3:EC:110:LYS:NZ	3:EC:113:ASP:OD1	2.24	0.60
1:AA:2016:U:H2'	1:AA:2017:U:C6	2.37	0.60
1:GA:1181:U:H2'	1:GA:1182:G:C8	2.36	0.60
47:BO:75:VAL:O	47:BO:79:THR:OG1	2.19	0.60
1:CA:666:A:H4'	12:CL:48:ARG:HD2	1.84	0.60
53:DU:4:ILE:N	53:DU:20:LYS:HZ1	1.99	0.60
10:AJ:44:TYR:CD1	17:AQ:59:LEU:HD11	2.37	0.60
16:AP:50:ARG:CD	16:AP:51:ASN:N	2.65	0.60
9:GI:78:LEU:HA	9:GI:82:ALA:HB3	1.82	0.60
19:CS:24:ILE:HG22	19:CS:71:VAL:HG21	1.84	0.60
33:HA:677:U:H3	33:HA:713:G:H22	1.50	0.60
1:CA:1248:G:C5	17:CQ:2:ARG:HG3	2.37	0.60
1:GA:2674:G:H4'	11:GK:30:ARG:HG3	1.84	0.60
33:DA:977:A:OP2	59:DA:1775:HOH:O	2.17	0.60
4:GD:13:ARG:NH1	11:GK:73:ASP:O	2.35	0.60
50:DR:22:ASP:OD1	50:DR:24:LYS:N	2.31	0.60
20:CT:39:THR:O	20:CT:41:ALA:N	2.34	0.60
28:C1:47:ILE:H	28:C1:47:ILE:HD12	1.67	0.60
18:ER:42:ALA:HA	18:ER:46:GLU:CB	2.32	0.60
32:A5:71:CYS:CA	32:A5:117:LEU:CD1	2.77	0.59
17:CQ:63:ARG:NH1	17:CQ:96:ASP:HA	2.18	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:1513:A:H2'	33:HA:1514:G:C8	2.37	0.59
32:A5:106:PHE:O	32:A5:108:VAL:N	2.35	0.59
1:CA:2269:G:O2'	23:CW:18:LYS:HG2	2.02	0.59
54:BV:222:LEU:O	54:BV:226:ALA:N	2.33	0.59
10:CJ:39:LYS:HA	10:CJ:43:GLU:HG3	1.83	0.59
33:BA:1412:C:OP1	44:BL:54:ARG:NH1	2.33	0.59
45:HM:57:ARG:HA	45:HM:60:VAL:HG12	1.84	0.59
42:BJ:35:GLN:HG2	42:BJ:77:VAL:HB	1.85	0.59
39:FG:70:ARG:HG3	39:FG:96:ARG:HG2	1.83	0.59
1:AA:568:U:O4	18:AR:81:LYS:NZ	2.35	0.59
1:AA:1594:U:H2'	1:AA:1595:C:C6	2.37	0.59
17:CQ:29:ARG:HG3	17:CQ:29:ARG:HH11	1.67	0.59
33:DA:207:C:H2'	33:DA:208:U:C5	2.37	0.59
10:EJ:3:THR:HB	10:EJ:44:TYR:OH	2.02	0.59
1:AA:1069:A:N3	1:AA:1073:A:N6	2.49	0.59
47:HO:46:HIS:C	47:HO:48:LYS:H	2.06	0.59
33:FA:1494:G:N7	55:FW:2:DPP:N	2.50	0.59
17:EQ:65:ASN:OD1	17:EQ:69:ARG:NH2	2.35	0.59
54:DV:58:GLU:OE1	54:DV:475:ARG:NH2	2.32	0.59
33:FA:1101:A:H4'	33:FA:1102:A:O5'	2.01	0.59
6:AF:51:ASN:O	6:AF:54:ALA:N	2.35	0.59
2:GB:2:G:H1	2:GB:119:A:HO3'	1.47	0.59
4:CD:149:ASN:OD1	4:CD:150:GLN:N	2.35	0.59
28:G1:3:GLY:O	28:G1:5:ARG:N	2.29	0.59
4:AD:62:LYS:HB2	4:AD:63:PRO:HD3	1.83	0.59
33:BA:1124:G:H3'	33:BA:1145:A:H62	1.66	0.59
13:AM:33:LEU:HD22	13:AM:128:THR:HB	1.84	0.59
32:A5:24:SER:C	32:A5:116:GLU:CB	2.71	0.59
33:HA:1306:A:N3	33:HA:1332:A:H1'	2.18	0.59
1:AA:1135:C:OP2	59:AA:3701:HOH:O	2.15	0.59
33:HA:461:A:H2'	33:HA:462:G:H5'	1.85	0.59
1:CA:1913:A:C2'	55:DW:4:SER:HA	2.32	0.59
33:BA:831:A:OP1	34:BB:20:ARG:NE	2.35	0.59
12:AL:85:VAL:HG22	12:AL:94:THR:HG22	1.85	0.59
1:GA:277:G:H1'	1:GA:361:G:H1	1.66	0.59
3:CC:255:LYS:O	3:CC:257:ARG:N	2.34	0.59
1:EA:1820:U:OP1	3:EC:176:ARG:NH2	2.34	0.59
7:CG:23:ILE:HG21	7:CG:71:LEU:HD11	1.85	0.59
20:ET:50:LEU:HD12	20:ET:50:LEU:H	1.67	0.59
34:DB:163:ILE:HG23	34:DB:164:ASP:H	1.67	0.59
1:AA:34:U:O2'	1:AA:35:G:OP1	2.19	0.59
9:CI:80:LYS:HG3	9:CI:86:LYS:HA	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:131:A:H2'	33:FA:132:C:C6	2.37	0.59
4:ED:68:PHE:HB3	4:ED:73:VAL:HG12	1.83	0.59
9:AI:80:LYS:HG3	9:AI:86:LYS:HG2	1.84	0.59
1:AA:1300:G:H4'	1:AA:1301:A:H5'	1.83	0.59
33:BA:451:A:N6	33:BA:480:U:H2'	2.17	0.59
36:HD:13:ARG:NH1	36:HD:37:ALA:O	2.35	0.59
5:CE:149:ILE:HD11	5:CE:172:ALA:HA	1.84	0.59
1:AA:526:A:OP1	59:AA:3246:HOH:O	2.16	0.59
33:FA:1316:G:N2	33:FA:1318:A:H3'	2.17	0.59
33:FA:1318:A:N3	51:FS:37:ARG:NH1	2.49	0.59
17:EQ:63:ARG:NH1	17:EQ:96:ASP:HA	2.17	0.59
1:GA:2346:A:H3'	1:GA:2347:C:C5'	2.32	0.59
36:HD:116:GLN:O	36:HD:120:HIS:ND1	2.35	0.59
1:CA:302:C:O3'	21:CU:78:LYS:NZ	2.34	0.59
18:AR:49:ILE:HD12	18:AR:52:PRO:HA	1.84	0.59
33:FA:1319:A:P	51:FS:5:LEU:HD11	2.43	0.59
33:DA:70:U:HO2'	33:DA:71:A:H8	1.49	0.59
33:HA:747:A:C6	33:HA:748:G:C5	2.91	0.59
33:HA:1203:C:OP1	59:HA:1777:HOH:O	2.17	0.59
2:EB:41:G:N7	6:EF:68:LYS:NZ	2.50	0.59
33:BA:717:U:O2'	33:BA:734:G:O4'	2.15	0.59
19:ES:18:ARG:O	19:ES:19:LEU:CB	2.49	0.59
54:BV:645:GLN:O	54:BV:647:SER:N	2.35	0.59
36:HD:15:GLU:OE2	36:HD:56:ARG:NH2	2.35	0.59
1:GA:248:G:H5'	1:GA:250:G:N7	2.17	0.59
44:BL:14:ARG:NH1	44:BL:15:LYS:HG2	2.18	0.59
17:EQ:91:ARG:HE	17:EQ:93:ILE:CG2	2.14	0.59
1:GA:1187:G:H5''	18:GR:83:TYR:CE2	2.38	0.59
1:EA:1378:A:H4'	1:EA:1379:U:OP1	2.02	0.59
1:CA:1131:G:OP1	10:CJ:82:GLY:HA2	2.02	0.59
48:HP:43:ALA:O	48:HP:46:LYS:HG2	2.03	0.59
1:AA:523:C:O2	1:AA:554:U:O2'	2.21	0.59
1:EA:1014:A:OP2	59:EA:3597:HOH:O	2.17	0.59
33:HA:489:C:H5''	36:HD:128:ARG:HH22	1.66	0.59
36:BD:116:GLN:HG2	36:BD:120:HIS:CD2	2.37	0.59
1:CA:1790:C:OP2	59:CA:3771:HOH:O	2.17	0.59
34:BB:153:MET:O	34:BB:155:GLY:N	2.35	0.59
2:GB:59:A:OP2	59:GB:1309:HOH:O	2.17	0.59
6:EF:134:GLN:HG3	6:EF:140:ILE:HG12	1.82	0.59
1:CA:2248:C:OP2	59:CA:3502:HOH:O	2.16	0.59
33:HA:1391:U:H2'	33:HA:1392:G:C8	2.37	0.59
7:EG:46:ASP:OD1	7:EG:47:ASN:N	2.34	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:GF:169:LEU:HB3	6:GF:176:PHE:CZ	2.38	0.59
7:EG:104:LEU:HD12	7:EG:112:VAL:HG21	1.84	0.59
1:GA:1070:A:H5'	1:GA:1072:C:OP2	2.02	0.59
54:FV:221:ASN:OD1	54:FV:221:ASN:N	2.36	0.59
39:HG:126:ASP:O	39:HG:130:ASN:HA	2.02	0.59
43:DK:35:THR:OG1	43:DK:40:ASN:N	2.32	0.59
1:EA:2584:U:O4	59:EA:3702:HOH:O	2.13	0.59
20:AT:2:ILE:HG22	20:AT:3:ARG:HD2	1.84	0.59
16:GP:50:ARG:HH11	16:GP:75:THR:HG21	1.68	0.59
33:HA:1468:A:C2'	33:HA:1469:C:H5'	2.33	0.59
37:HE:111:MET:HE1	37:HE:125:ALA:HB1	1.85	0.59
4:GD:5:VAL:H	4:GD:32:ASN:HD21	1.50	0.59
43:FK:24:HIS:HB3	43:FK:31:ILE:HG13	1.83	0.59
41:BI:22:LYS:O	41:BI:62:ASP:N	2.30	0.59
18:GR:49:ILE:HD12	18:GR:52:PRO:HA	1.85	0.59
33:BA:21:G:OP1	59:BA:1815:HOH:O	2.17	0.59
33:FA:677:U:H3	33:FA:713:G:H22	1.49	0.59
6:EF:41:GLU:HB2	6:EF:48:LEU:HD23	1.83	0.59
7:CG:97:VAL:HG11	7:CG:122:ALA:O	2.03	0.59
2:CB:90:C:H5'	13:CM:18:ARG:HG2	1.83	0.59
33:HA:1495:U:H2'	33:HA:1496:C:O2	2.03	0.59
32:E5:116:GLU:HG3	32:E5:117:LEU:H	1.67	0.59
1:GA:2502:G:H5'	1:GA:2503:A:H5''	1.84	0.59
32:A5:26:VAL:HG11	32:A5:77:VAL:HG13	1.84	0.59
33:HA:401:C:OP2	36:HD:70:ARG:NH1	2.35	0.59
33:FA:1493:A:OP2	55:FW:6:5OH:NP	2.36	0.59
4:GD:118:PHE:CD1	4:GD:119:ALA:N	2.71	0.59
37:FE:126:LYS:HG2	37:FE:128:TYR:CZ	2.38	0.59
46:DN:30:ILE:O	46:DN:35:ASN:ND2	2.35	0.59
33:DA:826:C:O2	40:DH:16:ASN:ND2	2.35	0.59
34:FB:115:ASP:O	34:FB:119:GLN:NE2	2.36	0.59
38:FF:38:ARG:HG2	38:FF:39:LEU:N	2.18	0.59
28:C1:7:LYS:HE3	30:C3:33:THR:HG21	1.84	0.59
23:CW:17:ALA:O	23:CW:18:LYS:HB2	2.03	0.59
1:AA:1084:A:H5'	32:A5:55:VAL:HG13	1.83	0.59
23:EW:28:GLU:O	23:EW:30:VAL:N	2.35	0.59
1:GA:140:C:H4'	1:GA:141:G:H21	1.68	0.59
45:FM:107:ARG:O	45:FM:111:GLY:N	2.34	0.59
6:GF:134:GLN:HG3	6:GF:140:ILE:HD13	1.85	0.59
1:GA:579:G:C2	1:GA:1262:A:C5	2.90	0.59
43:DK:88:GLY:H	43:DK:114:THR:HG22	1.67	0.59
33:HA:547:A:OP1	59:HA:1730:HOH:O	2.17	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:922:G:H4'	37:FE:25:VAL:HA	1.84	0.59
18:CR:39:LEU:HA	18:CR:49:ILE:HG21	1.85	0.59
36:HD:188:ARG:NE	36:HD:197:GLU:OE2	2.36	0.59
53:BU:41:PRO:O	53:BU:44:GLU:N	2.36	0.59
46:BN:20:TYR:O	46:BN:24:ARG:N	2.36	0.59
1:CA:100:U:H4'	1:CA:101:A:O5'	2.03	0.59
32:E5:64:VAL:O	32:E5:68:PRO:HD2	2.02	0.59
1:CA:1335:C:OP2	59:CA:3385:HOH:O	2.17	0.59
1:CA:2105:U:H2'	1:CA:2106:U:H6	1.68	0.59
23:EW:7:GLY:O	23:EW:10:ARG:NH1	2.35	0.59
1:GA:1450:G:C6	1:GA:1451:C:N4	2.70	0.59
20:GT:19:LYS:O	20:GT:23:ALA:N	2.35	0.59
1:AA:242:G:H5''	30:A3:63:TYR:CE2	2.38	0.59
40:HH:3:MET:HE1	40:HH:6:PRO:HA	1.84	0.59
18:CR:66:HIS:CD2	18:CR:94:THR:HG22	2.38	0.59
1:CA:752:A:H62	1:CA:2609:U:H3	1.51	0.59
1:GA:666:A:H4'	12:GL:48:ARG:HD2	1.83	0.59
37:FE:41:ASP:OD1	37:FE:42:GLY:N	2.35	0.59
29:G2:34:ARG:NH1	29:G2:41:ARG:O	2.36	0.59
36:FD:100:ASN:OD1	36:FD:111:ARG:NH1	2.35	0.59
1:AA:2478:A:H5'	31:A4:32:LYS:HD3	1.85	0.59
33:DA:1192:C:OP2	35:DC:4:LYS:NZ	2.32	0.59
7:EG:38:ASP:N	7:EG:38:ASP:OD1	2.36	0.59
1:GA:1993:U:H4'	4:GD:133:THR:HG21	1.84	0.59
12:GL:95:LEU:HD22	12:GL:100:ILE:HD11	1.83	0.59
16:CP:38:ARG:NH1	33:DA:346:G:H4'	2.17	0.59
1:EA:1913:A:N6	54:FV:591:LEU:HG	2.18	0.59
41:DI:51:PRO:HB3	41:DI:84:THR:CG2	2.33	0.59
34:DB:117:GLU:HA	34:DB:120:SER:HB2	1.84	0.59
4:CD:106:LYS:HB3	4:CD:206:ALA:HB3	1.84	0.59
1:AA:469:G:O6	29:A2:37:LYS:NZ	2.35	0.59
1:CA:999:U:OP1	59:CA:3357:HOH:O	2.17	0.59
35:HC:40:ARG:NH1	35:HC:55:ILE:O	2.36	0.59
1:EA:975:A:OP2	59:EA:3587:HOH:O	2.16	0.59
34:FB:81:ASP:O	34:FB:84:LEU:N	2.34	0.59
13:AM:1:MET:HB2	13:AM:47:GLU:HG3	1.84	0.59
16:EP:50:ARG:CD	16:EP:51:ASN:H	2.16	0.58
1:CA:1654:A:O2'	4:CD:118:PHE:CG	2.55	0.58
1:CA:2800:A:H3'	1:CA:2801:G:C5'	2.32	0.58
1:AA:1728:C:O2	1:AA:1731:G:N2	2.36	0.58
33:HA:35:G:O2'	44:HL:115:SER:O	2.16	0.58
54:HV:697:ALA:O	54:HV:699:ILE:N	2.36	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:8:ALA:O	54:DV:288:SER:OG	2.16	0.58
9:EI:135:MET:SD	9:EI:135:MET:N	2.76	0.58
1:CA:1080:A:H1'	9:CI:127:SER:HA	1.84	0.58
1:AA:1789:A:OP2	3:AC:220:ARG:NH1	2.36	0.58
4:AD:46:ARG:NH2	4:AD:87:GLY:O	2.35	0.58
1:CA:856:G:H1'	23:CW:23:LYS:HB3	1.85	0.58
23:GW:9:THR:HG23	23:GW:10:ARG:HD3	1.83	0.58
1:EA:1913:A:C5	33:FA:1494:G:H4'	2.38	0.58
1:AA:161:A:H3'	1:AA:162:U:H5''	1.84	0.58
44:BL:87:VAL:O	44:BL:89:ASP:N	2.37	0.58
33:DA:770:C:OP2	59:DA:1754:HOH:O	2.17	0.58
1:EA:2311:A:N3	6:EF:84:ILE:HD11	2.17	0.58
1:AA:2210:U:H4'	1:AA:2211:A:H5'	1.84	0.58
1:CA:2831:G:N7	4:CD:59:ARG:NH1	2.50	0.58
33:DA:980:C:OP1	59:DA:1827:HOH:O	2.17	0.58
5:GE:170:ARG:NH2	5:GE:176:ASP:OD2	2.36	0.58
1:GA:1031:G:H4'	31:G4:6:SER:HB2	1.85	0.58
52:HT:82:GLN:HA	52:HT:85:LYS:HB2	1.83	0.58
1:CA:2211:A:O2'	1:CA:2212:A:OP1	2.17	0.58
49:HQ:17:MET:SD	49:HQ:20:SER:OG	2.50	0.58
32:E5:44:ALA:HB1	32:E5:52:MET:HB2	1.83	0.58
26:GZ:8:GLN:O	26:GZ:10:ARG:N	2.35	0.58
7:AG:46:ASP:OD1	7:AG:47:ASN:N	2.34	0.58
6:EF:71:LYS:HD3	6:EF:72:SER:N	2.18	0.58
35:HC:79:LYS:N	35:HC:82:GLU:OE1	2.34	0.58
36:DD:30:THR:HG22	36:DD:31:LYS:H	1.68	0.58
33:BA:706:A:H2'	33:BA:707:U:H5'	1.85	0.58
1:GA:2141:G:C6	1:GA:2151:U:H1'	2.39	0.58
6:AF:55:ASP:O	6:AF:59:ILE:N	2.33	0.58
25:GY:56:LEU:O	25:GY:57:LEU:HB3	2.02	0.58
10:EJ:110:PRO:HB2	10:EJ:111:LYS:HG2	1.85	0.58
39:HG:106:GLU:HA	39:HG:109:ARG:HE	1.68	0.58
1:AA:2593:U:O4	59:AA:3775:HOH:O	2.16	0.58
33:DA:1108:G:C5	33:DA:1109:C:C5	2.91	0.58
1:EA:287:G:H2'	1:EA:288:U:C6	2.38	0.58
25:EY:56:LEU:O	25:EY:57:LEU:HB3	2.02	0.58
22:GV:4:ILE:HD11	22:GV:50:MET:SD	2.43	0.58
7:GG:38:ASP:OD1	7:GG:38:ASP:N	2.36	0.58
17:EQ:63:ARG:HH12	17:EQ:96:ASP:CA	2.16	0.58
37:FE:82:GLN:HG2	37:FE:150:PRO:HD3	1.85	0.58
1:AA:2683:C:O2	11:AK:70:ARG:NH2	2.37	0.58
1:AA:2314:A:H2'	1:AA:2315:G:C8	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:137:U:O2'	1:AA:138:U:OP2	2.20	0.58
1:EA:1125:G:O6	59:EA:3603:HOH:O	2.14	0.58
1:AA:78:U:H2'	1:AA:79:C:C6	2.37	0.58
9:CI:71:LYS:HD2	9:CI:71:LYS:H	1.69	0.58
1:AA:2253:G:OP1	59:AA:3504:HOH:O	2.17	0.58
33:FA:1158:C:O3'	34:FB:131:LYS:NZ	2.32	0.58
33:DA:462:G:N2	33:DA:470:C:N3	2.45	0.58
4:AD:110:THR:HB	4:AD:202:ILE:HG22	1.85	0.58
32:E5:106:PHE:O	32:E5:108:VAL:N	2.36	0.58
23:CW:37:VAL:HB	23:CW:38:ARG:HH11	1.69	0.58
23:EW:51:GLY:HA3	23:EW:59:PHE:CE1	2.39	0.58
32:E5:91:ALA:O	32:E5:93:ALA:N	2.36	0.58
1:EA:654:A:N3	1:EA:654:A:H3'	2.18	0.58
48:HP:46:LYS:HG3	48:HP:47:GLU:N	2.19	0.58
1:GA:1277:G:H5'	14:GN:20:MET:HE2	1.86	0.58
1:EA:84:A:P	21:EU:5:ARG:NH2	2.77	0.58
9:CI:14:ALA:HA	9:CI:45:THR:CG2	2.34	0.58
46:DN:54:ASP:OD1	46:DN:59:ARG:NH1	2.35	0.58
6:AF:135:ILE:HG12	6:AF:140:ILE:HG21	1.85	0.58
54:HV:453:SER:O	54:HV:455:GLN:N	2.36	0.58
17:CQ:91:ARG:HH11	18:CR:11:GLN:N	2.01	0.58
33:HA:1116:U:H4'	41:HI:110:GLN:HE22	1.69	0.58
23:CW:19:ARG:CZ	23:CW:22:VAL:HB	2.34	0.58
43:BK:23:ILE:HG22	43:BK:32:VAL:HG22	1.85	0.58
1:AA:1288:G:C4	1:AA:1327:A:C2	2.92	0.58
10:AJ:80:HIS:O	10:AJ:82:GLY:N	2.37	0.58
51:FS:5:LEU:HD12	51:FS:5:LEU:N	2.18	0.58
1:EA:2328:A:H2'	1:EA:2329:U:C6	2.38	0.58
18:AR:42:ALA:HA	18:AR:46:GLU:HB2	1.86	0.58
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.38	0.58
44:BL:24:LEU:HG	44:BL:25:GLU:H	1.67	0.58
6:CF:72:SER:HB2	6:CF:80:GLN:HB2	1.84	0.58
1:EA:1313:U:H2'	1:EA:1610:A:C2	2.38	0.58
1:EA:528:A:C2	1:EA:2043:C:H4'	2.39	0.58
33:DA:457:G:N2	33:DA:476:U:O2	2.36	0.58
9:AI:98:GLY:CA	9:AI:137:LEU:HD22	2.33	0.58
43:HK:34:ILE:CD1	43:HK:70:CYS:HB2	2.33	0.58
23:EW:41:GLY:O	23:EW:43:LYS:N	2.33	0.58
16:AP:50:ARG:CG	16:AP:57:ALA:H	2.17	0.58
1:AA:2330:G:C2	1:AA:2386:A:C2	2.92	0.58
6:AF:52:ALA:HB2	6:AF:149:ARG:HD3	1.86	0.58
46:DN:52:PRO:O	46:DN:55:SER:HB3	2.04	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:84:A:N1	1:EA:98:G:O2'	2.28	0.58
9:CI:14:ALA:HB3	9:CI:50:LYS:HA	1.84	0.58
41:HI:45:ARG:HG3	41:HI:46:MET:SD	2.44	0.58
49:FQ:15:ASP:HA	49:FQ:21:ILE:CD1	2.33	0.58
44:FL:123:LYS:NZ	54:FV:301:ASP:OD2	2.27	0.58
50:FR:22:ASP:OD1	50:FR:24:LYS:N	2.34	0.58
33:FA:1166:G:N1	33:FA:1169:A:OP2	2.36	0.58
1:GA:1437:C:H2'	1:GA:1438:U:C6	2.39	0.58
24:EX:29:LEU:H	24:EX:29:LEU:HD23	1.68	0.58
3:GC:91:ALA:HB3	3:GC:103:ILE:HG22	1.86	0.58
6:AF:53:ALA:HA	6:AF:64:PRO:HG2	1.85	0.58
11:CK:70:ARG:HD3	11:CK:76:VAL:HG22	1.86	0.58
9:AI:23:VAL:HB	9:AI:27:LEU:HB3	1.86	0.58
32:E5:60:LEU:O	32:E5:64:VAL:HB	2.04	0.58
23:CW:49:ASN:HA	23:CW:61:LYS:HB2	1.86	0.58
1:AA:191:A:H2'	1:AA:192:C:C6	2.38	0.58
36:FD:192:SER:OG	36:FD:193:ALA:N	2.36	0.58
33:BA:1329:A:H5'	45:BM:29:ARG:HD3	1.86	0.58
33:HA:131:A:H2'	33:HA:132:C:C6	2.39	0.58
33:HA:1229:A:OP2	45:HM:113:ARG:NH1	2.37	0.58
5:CE:119:ILE:HD13	5:CE:187:VAL:HA	1.86	0.58
1:AA:163:C:O2'	1:AA:164:C:O5'	2.20	0.58
1:AA:2324:U:H3'	1:AA:2325:G:C5'	2.32	0.58
37:FE:36:LEU:HD21	37:FE:137:VAL:CG1	2.34	0.58
46:BN:27:LEU:HA	46:BN:31:ILE:CD1	2.34	0.58
20:AT:50:LEU:HD23	25:AY:26:PHE:CD2	2.38	0.58
1:GA:265:A:H4'	1:GA:266:G:OP1	2.04	0.58
44:BL:99:ARG:HB2	44:BL:117:TYR:HA	1.86	0.58
1:AA:2025:C:OP2	59:AA:3474:HOH:O	2.17	0.58
54:BV:697:ALA:O	54:BV:699:ILE:N	2.37	0.58
33:DA:524:G:H2'	33:DA:525:C:C6	2.39	0.58
33:BA:746:A:H2'	33:BA:747:A:C8	2.39	0.58
54:HV:23:LYS:O	54:HV:24:THR:OG1	2.22	0.58
3:CC:29:PHE:CE2	3:CC:31:PRO:HG2	2.38	0.58
7:AG:162:ARG:CZ	7:AG:168:VAL:HG21	2.34	0.58
24:EX:69:GLU:O	24:EX:71:ARG:N	2.37	0.58
3:CC:140:VAL:HG13	3:CC:189:ALA:HB1	1.86	0.58
34:DB:69:VAL:HG23	34:DB:162:VAL:HB	1.86	0.58
1:GA:783:A:C8	1:GA:784:G:H4'	2.39	0.58
9:AI:72:THR:OG1	9:AI:112:LYS:NZ	2.37	0.58
1:AA:983:A:C6	1:AA:984:A:C2	2.92	0.58
6:AF:59:ILE:HG22	6:AF:98:PHE:CE1	2.39	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1124:G:H2'	33:BA:1145:A:N6	2.19	0.58
4:GD:133:THR:HG23	4:GD:134:HIS:N	2.19	0.58
39:HG:57:SER:OG	39:HG:58:GLU:N	2.30	0.58
7:AG:25:ILE:HG22	7:AG:78:VAL:HG21	1.86	0.58
1:GA:42:A:H2'	1:GA:43:G:H5'	1.85	0.58
4:CD:133:THR:HG23	4:CD:134:HIS:N	2.19	0.58
1:GA:1205:A:C5	5:GE:165:HIS:NE2	2.71	0.58
54:BV:500:ASP:N	54:BV:521:ASP:OD1	2.36	0.58
1:GA:1805:A:N3	3:GC:49:THR:HG23	2.19	0.58
4:GD:33:ARG:NH1	4:GD:53:GLY:O	2.36	0.58
40:HH:106:THR:HG21	40:HH:121:LEU:HD13	1.84	0.58
35:HC:42:TYR:CE2	35:HC:90:VAL:HG21	2.39	0.58
36:DD:154:ARG:O	36:DD:158:ALA:N	2.37	0.58
7:GG:22:VAL:O	7:GG:22:VAL:HG23	2.03	0.58
1:EA:34:U:O2'	1:EA:35:G:OP1	2.18	0.58
18:CR:16:GLU:HA	18:CR:98:ILE:HG22	1.86	0.58
1:AA:996:A:H4'	17:AQ:91:ARG:CD	2.34	0.57
33:BA:1028:C:N4	33:BA:1029:U:O2	2.36	0.57
34:FB:112:ARG:CZ	34:FB:116:LEU:HD21	2.34	0.57
4:GD:97:SER:OG	4:GD:98:VAL:N	2.37	0.57
33:BA:994:A:C5	33:BA:1216:A:H4'	2.38	0.57
33:DA:1525:G:OP1	43:DK:122:ARG:NH2	2.37	0.57
33:BA:568:G:O6	44:BL:2:ALA:N	2.37	0.57
14:AN:29:VAL:HG11	14:AN:75:ILE:HG23	1.85	0.57
34:DB:10:LYS:O	34:DB:12:GLY:N	2.35	0.57
7:CG:88:LEU:HD11	7:CG:95:ALA:HB2	1.86	0.57
1:CA:528:A:C2	1:CA:2043:C:H4'	2.38	0.57
1:EA:2578:G:H1'	4:ED:144:GLY:HA2	1.85	0.57
33:DA:922:G:H4'	37:DE:25:VAL:HA	1.85	0.57
1:EA:126:A:O5'	29:E2:19:ARG:HG3	2.03	0.57
33:DA:83:C:HO2'	33:DA:84:U:H5	1.51	0.57
1:GA:2365:G:H4'	23:GW:59:PHE:CZ	2.39	0.57
1:CA:963:U:OP1	59:CA:3351:HOH:O	2.17	0.57
6:GF:15:LEU:CD1	6:GF:168:LEU:HA	2.34	0.57
6:AF:139:GLU:N	6:AF:139:GLU:OE1	2.37	0.57
33:FA:1323:G:O6	51:FS:4:SER:OG	2.22	0.57
33:BA:885:G:OP1	44:BL:15:LYS:NZ	2.37	0.57
36:HD:72:PHE:CZ	36:HD:200:ILE:HD11	2.40	0.57
15:GO:51:ALA:HB3	15:GO:78:VAL:HG13	1.86	0.57
1:AA:579:G:O2'	1:AA:2019:A:OP1	2.21	0.57
33:DA:1152:A:OP1	42:DJ:70:HIS:ND1	2.37	0.57
1:CA:1534:U:H3'	1:CA:1536:C:C5	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1938:A:OP2	59:AA:3722:HOH:O	2.18	0.57
1:AA:572:A:OP2	18:AR:80:ARG:NH2	2.37	0.57
10:GJ:25:LEU:HB2	10:GJ:62:VAL:HG21	1.87	0.57
1:EA:242:G:H5''	30:E3:63:TYR:CE2	2.39	0.57
33:DA:178:C:OP2	59:DA:1873:HOH:O	2.17	0.57
9:CI:107:GLU:HA	9:CI:110:GLN:HB3	1.85	0.57
34:BB:81:ASP:O	34:BB:84:LEU:N	2.37	0.57
1:EA:1730:C:N4	35:HC:103:ILE:HB	2.19	0.57
1:AA:1798:U:OP2	3:AC:270:ARG:NH2	2.37	0.57
53:FU:34:ARG:HH21	53:FU:35:ARG:HD2	1.68	0.57
43:DK:13:ARG:HG2	43:DK:14:LYS:N	2.19	0.57
1:CA:2886:A:C2	1:CA:2887:A:H1'	2.38	0.57
23:AW:40:ARG:HG3	23:AW:56:HIS:CD2	2.39	0.57
37:BE:110:ALA:O	37:BE:111:MET:HB3	2.04	0.57
33:HA:629:A:H2'	33:HA:630:A:O4'	2.04	0.57
1:EA:1439:A:OP2	59:EA:3627:HOH:O	2.16	0.57
4:AD:120:GLY:HA2	4:AD:162:ALA:HA	1.86	0.57
1:CA:2427:C:H5''	1:CA:2428:G:OP1	2.03	0.57
33:BA:1004:A:O2'	33:BA:1036:A:N1	2.33	0.57
33:FA:402:G:N7	59:FA:1727:HOH:O	2.33	0.57
1:GA:2334:U:O3'	15:GO:13:ARG:NH1	2.36	0.57
1:CA:1723:G:O6	1:CA:1737:G:O2'	2.12	0.57
1:AA:2800:A:H3'	1:AA:2801:G:C5'	2.34	0.57
1:CA:1869:G:H3'	1:CA:1870:C:H5''	1.87	0.57
20:CT:50:LEU:HD12	20:CT:50:LEU:H	1.69	0.57
32:E5:26:VAL:CG1	32:E5:77:VAL:CG1	2.80	0.57
23:EW:55:ASP:O	23:EW:57:THR:N	2.37	0.57
1:CA:1913:A:C2	54:DV:591:LEU:HG	2.40	0.57
23:GW:46:ALA:HB3	23:GW:79:ILE:O	2.04	0.57
1:AA:572:A:OP1	59:AA:3562:HOH:O	2.17	0.57
37:BE:111:MET:HE1	37:BE:125:ALA:HB1	1.86	0.57
37:DE:24:THR:HA	37:DE:29:ARG:HA	1.87	0.57
41:FI:6:TYR:CD1	41:FI:89:GLU:HB2	2.39	0.57
41:HI:25:ASN:HB2	41:HI:27:LYS:HE3	1.85	0.57
25:GY:61:ALA:O	25:GY:63:ALA:N	2.35	0.57
33:BA:250:A:H4'	33:BA:251:G:O5'	2.04	0.57
33:BA:259:G:OP2	59:BA:1704:HOH:O	2.16	0.57
37:FE:157:ARG:HD3	40:FH:45:PHE:CZ	2.39	0.57
6:CF:51:ASN:O	6:CF:54:ALA:N	2.38	0.57
33:DA:143:A:H5'	33:DA:144:G:H5'	1.85	0.57
35:FC:159:GLY:HA2	35:FC:193:TYR:CE1	2.38	0.57
37:DE:97:GLN:HB2	37:DE:124:LEU:HB2	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:172:A:H2'	1:CA:173:A:C8	2.40	0.57
34:HB:82:ALA:O	34:HB:88:GLN:NE2	2.38	0.57
45:HM:14:HIS:O	45:HM:18:ALA:N	2.34	0.57
33:HA:844:G:H2'	33:HA:845:A:H5''	1.87	0.57
37:BE:24:THR:HA	37:BE:29:ARG:HA	1.85	0.57
36:BD:136:GLN:HE21	36:BD:136:GLN:HA	1.69	0.57
1:AA:2375:G:N2	1:AA:2378:A:OP2	2.33	0.57
32:E5:56:ARG:O	32:E5:57:ASN:ND2	2.38	0.57
32:E5:93:ALA:HB3	32:E5:95:LEU:CD2	2.35	0.57
33:FA:204:G:H3'	33:FA:205:A:C5'	2.35	0.57
17:GQ:84:LYS:O	17:GQ:86:SER:N	2.38	0.57
18:CR:49:ILE:HD12	18:CR:52:PRO:HA	1.85	0.57
36:FD:151:LYS:HA	36:FD:155:VAL:HG13	1.85	0.57
1:CA:242:G:H5''	30:C3:63:TYR:CE2	2.39	0.57
1:EA:684:G:OP1	29:E2:16:HIS:ND1	2.34	0.57
3:CC:237:ARG:NH2	59:CC:309:HOH:O	2.38	0.57
1:GA:1938:A:OP2	59:GA:3719:HOH:O	2.17	0.57
17:EQ:97:ILE:HD11	17:EQ:105:PHE:HA	1.87	0.57
2:GB:26:C:H1'	2:GB:117:G:H1'	1.85	0.57
43:HK:55:SER:HA	43:HK:57:LYS:HE3	1.85	0.57
4:CD:97:SER:OG	4:CD:98:VAL:N	2.38	0.57
1:CA:76:C:OP1	25:CY:48:ARG:NH1	2.36	0.57
52:BT:44:LYS:HA	52:BT:87:ALA:HB1	1.87	0.57
33:BA:143:A:H5'	33:BA:144:G:H5'	1.87	0.57
33:DA:409:U:H2'	33:DA:410:G:O4'	2.04	0.57
1:CA:1786:A:H1'	1:CA:1938:A:N6	2.20	0.57
1:CA:2707:U:O4	59:CA:3674:HOH:O	2.17	0.57
16:EP:50:ARG:CG	16:EP:57:ALA:O	2.51	0.57
33:HA:844:G:C3'	33:HA:845:A:H5''	2.34	0.57
24:CX:30:PRO:HB2	24:CX:32:LEU:CD1	2.35	0.57
54:FV:171:LEU:O	54:FV:183:VAL:N	2.36	0.57
54:DV:100:GLU:OE1	54:DV:132:LYS:NZ	2.33	0.57
41:DI:94:LEU:O	41:DI:96:SER:N	2.31	0.57
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.39	0.57
17:CQ:91:ARG:HH21	17:CQ:93:ILE:HG21	1.69	0.57
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.40	0.57
1:CA:2101:A:C2	1:CA:2102:G:C2	2.93	0.57
33:BA:626:G:OP1	48:BP:35:ARG:NH2	2.38	0.57
33:HA:523:A:H61	44:HL:89:ASP:HB2	1.70	0.57
34:BB:90:PHE:N	34:BB:149:GLY:O	2.37	0.57
11:GK:18:ARG:HD3	11:GK:45:GLU:HG3	1.86	0.57
4:AD:99:GLU:HG3	4:AD:100:LEU:N	2.20	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:250:G:OP2	30:C3:12:ARG:NH1	2.38	0.57
42:BJ:10:LEU:HB2	42:BJ:72:ARG:HB2	1.86	0.57
20:AT:28:ASN:HA	20:AT:91:GLN:OE1	2.04	0.57
34:FB:46:VAL:HA	34:FB:49:PHE:CE2	2.39	0.57
54:HV:591:LEU:O	54:HV:594:LYS:N	2.37	0.57
34:DB:98:GLY:C	34:DB:100:LEU:H	2.08	0.57
33:BA:33:A:O2'	44:BL:29:GLN:OE1	2.15	0.57
17:GQ:64:ILE:HD11	17:GQ:92:LYS:O	2.04	0.57
4:CD:68:PHE:C	4:CD:73:VAL:HG12	2.25	0.57
5:CE:112:LEU:HD13	5:CE:186:VAL:HG11	1.85	0.57
35:BC:115:LEU:O	35:BC:119:SER:N	2.33	0.57
17:CQ:91:ARG:HE	17:CQ:93:ILE:HG21	1.69	0.57
10:AJ:111:LYS:CD	10:AJ:112:GLY:H	2.16	0.57
33:DA:1033:G:H2'	33:DA:1034:G:C5'	2.35	0.57
18:CR:49:ILE:HB	18:CR:51:VAL:O	2.05	0.57
33:FA:1194:U:H5'	37:FE:27:GLY:HA2	1.85	0.57
1:CA:1800:C:OP2	3:CC:181:ARG:NH1	2.37	0.57
1:CA:2013:A:N3	19:CS:88:ARG:NH1	2.52	0.57
33:BA:1101:A:H4'	33:BA:1102:A:O5'	2.04	0.57
9:EI:28:GLY:HA2	9:EI:32:VAL:HB	1.86	0.57
12:AL:110:VAL:O	12:AL:111:ILE:HB	2.05	0.57
1:EA:2103:C:H2'	1:EA:2104:C:H5'	1.86	0.57
17:GQ:91:ARG:HE	17:GQ:93:ILE:HG21	1.68	0.57
10:EJ:43:GLU:O	10:EJ:45:THR:N	2.38	0.57
53:DU:34:ARG:NE	53:DU:35:ARG:HG3	2.19	0.57
1:AA:1106:G:OP1	32:A5:62:ARG:NH2	2.32	0.57
1:GA:84:A:H4'	1:GA:85:G:O5'	2.05	0.57
1:AA:276:U:O2'	1:AA:278:A:N7	2.37	0.57
1:GA:2331:G:O2'	1:GA:2336:A:N1	2.38	0.57
23:GW:55:ASP:O	23:GW:57:THR:N	2.37	0.57
12:AL:85:VAL:CG2	12:AL:94:THR:HG22	2.34	0.57
1:AA:84:A:H4'	1:AA:85:G:O5'	2.05	0.57
16:GP:50:ARG:HD2	16:GP:51:ASN:N	2.19	0.57
1:AA:335:C:O5'	59:AA:3549:HOH:O	2.16	0.57
33:DA:39:G:H2'	33:DA:40:C:C6	2.40	0.57
33:FA:1181:G:O2'	33:FA:1182:G:C8	2.58	0.57
1:AA:2834:G:O6	1:AA:2879:A:H2'	2.04	0.57
33:BA:618:C:N3	33:BA:622:A:N6	2.53	0.57
20:GT:27:SER:O	20:GT:28:ASN:ND2	2.38	0.57
11:AK:17:ARG:HB2	11:AK:45:GLU:HB3	1.87	0.57
1:CA:34:U:O2'	1:CA:35:G:OP1	2.20	0.57
1:EA:1078:U:O2'	1:EA:1088:A:OP1	2.17	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:129:LEU:HB3	32:A5:130:PRO:HD2	1.87	0.57
32:E5:43:LYS:NZ	32:E5:98:GLU:HB2	2.20	0.57
42:HJ:5:ARG:HG3	42:HJ:6:ILE:HG13	1.85	0.57
1:CA:2539:C:H5'	31:C4:3:VAL:HG21	1.87	0.57
1:GA:1070:A:H5'	1:GA:1072:C:P	2.45	0.57
33:BA:906:A:N1	59:BA:1762:HOH:O	2.33	0.57
17:GQ:4:LYS:HG3	17:GQ:5:ARG:H	1.69	0.57
1:EA:731:C:N4	59:EA:3691:HOH:O	2.38	0.57
3:AC:161:VAL:HG11	3:AC:173:LEU:HD23	1.85	0.57
1:EA:645:C:O2	1:EA:645:C:O2'	2.14	0.57
1:CA:2657:A:O3'	7:CG:159:LYS:NZ	2.37	0.57
1:EA:1327:A:N6	1:EA:1328:A:C2	2.73	0.57
18:ER:49:ILE:HD12	18:ER:52:PRO:HA	1.87	0.57
33:BA:946:A:H2'	33:BA:947:G:C8	2.40	0.57
33:BA:117:G:N7	59:BA:1886:HOH:O	2.33	0.57
32:A5:70:GLU:N	32:A5:70:GLU:OE1	2.38	0.57
1:EA:1107:G:H4'	32:E5:81:LEU:HA	1.85	0.56
43:HK:75:LYS:O	43:HK:78:GLY:N	2.37	0.56
23:GW:37:VAL:HG12	23:GW:38:ARG:H	1.69	0.56
11:AK:73:ASP:OD1	11:AK:74:GLY:N	2.36	0.56
1:GA:2800:A:H3'	1:GA:2801:G:H5'	1.86	0.56
1:AA:1176:U:H2'	1:AA:1177:G:C8	2.40	0.56
18:AR:49:ILE:HB	18:AR:51:VAL:O	2.05	0.56
41:DI:11:ARG:H	41:DI:81:HIS:HD2	1.53	0.56
1:AA:1263:U:OP1	27:A0:12:ARG:NH1	2.36	0.56
4:AD:97:SER:OG	4:AD:98:VAL:N	2.38	0.56
1:AA:517:C:OP2	27:A0:9:ARG:NH2	2.38	0.56
38:HF:38:ARG:HB3	38:HF:63:ASN:HB2	1.87	0.56
40:BH:53:GLY:HA3	40:BH:57:PRO:HA	1.86	0.56
33:BA:1182:G:H4'	33:BA:1183:U:C5'	2.35	0.56
7:EG:174:LYS:O	7:EG:176:LYS:N	2.36	0.56
50:BR:37:GLY:O	50:BR:63:ARG:NH2	2.38	0.56
16:EP:108:ARG:NH1	33:FA:1464:U:OP2	2.37	0.56
34:HB:114:LYS:HA	34:HB:117:GLU:HG2	1.87	0.56
33:BA:1218:C:H2'	33:BA:1219:A:C8	2.40	0.56
33:FA:250:A:H4'	33:FA:251:G:O5'	2.05	0.56
20:CT:54:GLU:HB2	20:CT:88:LYS:HG3	1.87	0.56
44:DL:43:LYS:HG2	44:DL:44:LYS:H	1.70	0.56
36:BD:73:ARG:HD3	36:BD:204:TYR:CE2	2.40	0.56
1:CA:1378:A:H4'	1:CA:1379:U:OP1	2.05	0.56
43:HK:34:ILE:HD11	43:HK:70:CYS:HB2	1.86	0.56
1:CA:1938:A:OP2	59:CA:3718:HOH:O	2.18	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1064:C:N4	1:GA:1065:U:O4	2.38	0.56
12:AL:95:LEU:HD23	12:AL:100:ILE:HD11	1.87	0.56
1:AA:1078:U:H5''	1:AA:1079:C:OP1	2.05	0.56
33:DA:414:A:H2'	33:DA:415:A:O4'	2.04	0.56
37:DE:16:ILE:HG23	37:DE:110:ALA:HB2	1.87	0.56
1:CA:2346:A:H3'	1:CA:2347:C:C5'	2.35	0.56
1:GA:1205:A:C4	5:GE:165:HIS:NE2	2.73	0.56
33:BA:158:G:H2'	33:BA:159:G:H5'	1.87	0.56
15:CO:31:THR:HG23	15:CO:32:PRO:HD2	1.86	0.56
35:HC:142:MET:HE1	35:HC:171:GLY:HA3	1.86	0.56
37:BE:45:ARG:HA	37:BE:72:ILE:O	2.05	0.56
1:GA:1383:A:N7	1:GA:1384:A:C6	2.73	0.56
33:DA:619:U:N3	36:DD:131:ASN:HB3	2.19	0.56
9:AI:123:ALA:HA	9:AI:126:ARG:CZ	2.34	0.56
1:EA:1421:G:C2	1:EA:1422:G:C8	2.93	0.56
33:DA:620:C:H1'	36:DD:132:ILE:CD1	2.35	0.56
1:GA:2611:C:OP2	59:GA:3537:HOH:O	2.17	0.56
1:CA:1669:A:OP2	59:CA:3711:HOH:O	2.18	0.56
15:AO:51:ALA:HB3	15:AO:78:VAL:HG13	1.87	0.56
1:AA:528:A:C2	1:AA:2043:C:H4'	2.40	0.56
33:HA:518:C:H2'	33:HA:530:G:C8	2.40	0.56
1:EA:2062:A:N7	1:EA:2503:A:N6	2.53	0.56
1:GA:1174:U:H5'	1:GA:1175:A:OP2	2.06	0.56
43:HK:125:LYS:O	53:HU:34:ARG:CZ	2.54	0.56
43:HK:15:GLN:NE2	43:HK:78:GLY:O	2.38	0.56
1:EA:2387:U:O2'	23:EW:38:ARG:NH2	2.38	0.56
44:FL:44:LYS:HB3	44:FL:45:PRO:CD	2.36	0.56
1:GA:1779:U:C5	1:GA:1784:A:N7	2.73	0.56
1:AA:1824:G:N3	3:AC:251:THR:HG21	2.20	0.56
41:HI:52:LEU:HA	41:HI:57:MET:HG3	1.86	0.56
26:EZ:8:GLN:O	26:EZ:10:ARG:N	2.38	0.56
45:BM:20:THR:HA	45:BM:25:VAL:HG23	1.87	0.56
41:DI:10:GLY:HA2	41:DI:81:HIS:CD2	2.41	0.56
50:BR:63:ARG:HB3	50:BR:70:TYR:CZ	2.40	0.56
20:CT:54:GLU:HG3	20:CT:88:LYS:HB2	1.87	0.56
33:FA:1192:C:OP2	35:FC:4:LYS:NZ	2.31	0.56
46:BN:61:ARG:O	46:BN:62:ASN:HB2	2.05	0.56
1:GA:2304:G:H4'	6:GF:129:MET:HA	1.87	0.56
54:DV:313:ASP:OD2	54:DV:378:ARG:NH1	2.39	0.56
1:GA:45:G:H5''	1:GA:46:G:H5'	1.86	0.56
44:DL:72:HIS:ND1	44:DL:73:ASN:O	2.37	0.56
2:AB:34:A:N6	2:AB:44:G:O2'	2.37	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2627:G:O2'	1:AA:2781:A:N1	2.35	0.56
1:CA:271:G:H4'	1:CA:272:A:OP1	2.05	0.56
33:HA:51:A:H4'	33:HA:52:C:O5'	2.05	0.56
1:AA:2518:A:OP2	59:AA:3531:HOH:O	2.18	0.56
34:FB:79:VAL:O	34:FB:83:ALA:HB3	2.05	0.56
1:AA:2505:G:HO2'	1:AA:2506:U:H6	1.53	0.56
43:HK:107:ILE:HG23	53:HU:12:PHE:HE2	1.70	0.56
31:G4:36:ARG:HG2	31:G4:37:GLN:H	1.70	0.56
54:HV:195:ASP:OD1	54:HV:196:ALA:N	2.38	0.56
33:FA:17:U:H2'	33:FA:18:C:C6	2.40	0.56
1:GA:1605:C:H2'	1:GA:1606:C:H5'	1.87	0.56
38:FF:64:VAL:HG12	38:FF:65:GLU:N	2.20	0.56
49:BQ:12:VAL:HG12	49:BQ:13:VAL:N	2.21	0.56
45:HM:114:LYS:CB	45:HM:115:PRO:HD3	2.36	0.56
1:GA:2107:G:H1	1:GA:2182:U:H2'	1.70	0.56
8:CH:10:ALA:O	8:CH:12:LEU:N	2.35	0.56
54:DV:338:VAL:HG21	54:DV:377:VAL:HG12	1.88	0.56
40:DH:106:THR:HG21	40:DH:121:LEU:HD22	1.86	0.56
19:ES:63:GLY:O	19:ES:64:ALA:HB3	2.05	0.56
12:CL:87:GLY:O	12:CL:89:VAL:N	2.37	0.56
49:HQ:50:ASN:O	49:HQ:52:GLU:N	2.38	0.56
37:BE:46:VAL:HG12	37:BE:47:GLY:N	2.19	0.56
45:HM:20:THR:HA	45:HM:25:VAL:HG23	1.87	0.56
4:GD:39:ASP:OD1	4:GD:40:LEU:N	2.37	0.56
1:CA:1007:C:OP1	10:CJ:37:ARG:NH2	2.37	0.56
4:CD:12:THR:HG22	4:CD:13:ARG:N	2.21	0.56
1:GA:1226:A:OP1	17:GQ:15:LYS:NZ	2.34	0.56
33:DA:202:G:O2'	33:DA:468:A:H2'	2.05	0.56
33:DA:108:G:OP2	33:DA:108:G:N2	2.38	0.56
32:A5:116:GLU:CG	32:A5:117:LEU:H	2.19	0.56
17:EQ:91:ARG:HH11	18:ER:11:GLN:H	1.51	0.56
17:AQ:94:LEU:HD22	18:AR:11:GLN:HB2	1.88	0.56
17:AQ:93:ILE:O	17:AQ:96:ASP:N	2.39	0.56
1:CA:855:G:H1'	23:CW:23:LYS:HE3	1.88	0.56
1:GA:2325:G:C6	1:GA:2326:C:N4	2.73	0.56
1:CA:195:A:N7	59:CA:3747:HOH:O	2.33	0.56
45:DM:114:LYS:CB	45:DM:115:PRO:HD3	2.35	0.56
6:AF:15:LEU:HA	6:AF:18:GLU:HB2	1.87	0.56
6:AF:37:MET:SD	6:AF:52:ALA:HB1	2.46	0.56
16:AP:52:ARG:HG3	16:AP:52:ARG:NH1	2.20	0.56
14:AN:26:GLY:CA	14:AN:75:ILE:HD13	2.34	0.56
1:CA:1045:C:O2	1:CA:1047:G:N1	2.37	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:HV:309:ARG:NH2	54:HV:402:ALA:O	2.38	0.56
9:EI:79:LEU:HA	9:EI:83:ALA:HB3	1.87	0.56
33:DA:135:C:O2	48:DP:1:MET:N	2.38	0.56
1:AA:384:A:H2'	1:AA:385:C:H5'	1.87	0.56
33:FA:210:C:H4'	33:FA:211:G:C2	2.40	0.56
33:HA:1244:G:H2'	33:HA:1245:C:C6	2.40	0.56
33:DA:1098:C:OP2	34:DB:142:LYS:NZ	2.33	0.56
1:EA:2107:G:N2	1:EA:2108:A:H1'	2.21	0.56
33:FA:971:G:O6	33:FA:1364:U:O2'	2.21	0.56
43:HK:74:VAL:HG23	43:HK:79:ILE:HD12	1.86	0.56
54:BV:221:ASN:HA	54:BV:224:GLU:CB	2.36	0.56
23:CW:23:LYS:HE2	23:CW:24:ARG:HB3	1.88	0.56
1:GA:2714:G:OP2	59:GA:3544:HOH:O	2.18	0.56
23:GW:41:GLY:C	23:GW:43:LYS:H	2.07	0.56
23:GW:28:GLU:O	23:GW:30:VAL:N	2.38	0.56
11:EK:121:GLU:OE2	16:EP:64:SER:OG	2.23	0.56
1:AA:1088:A:HO2'	1:AA:1089:A:P	2.28	0.56
33:BA:885:G:O2'	33:BA:914:A:N1	2.36	0.56
49:BQ:12:VAL:HG13	49:BQ:21:ILE:CG1	2.36	0.56
36:FD:150:LYS:HG2	36:FD:178:MET:SD	2.45	0.56
20:ET:40:LYS:CA	20:ET:43:ILE:HG23	2.36	0.56
5:GE:131:THR:HG23	5:GE:164:LEU:CD2	2.36	0.56
1:CA:2365:G:H4'	23:CW:59:PHE:CE2	2.40	0.56
33:DA:8:A:N6	36:DD:202:GLU:O	2.39	0.56
54:DV:203:GLU:O	54:DV:205:GLU:N	2.39	0.56
16:GP:105:LYS:HA	16:GP:108:ARG:HD3	1.87	0.56
36:FD:188:ARG:NE	36:FD:197:GLU:OE2	2.38	0.56
33:DA:260:G:N2	33:DA:265:G:N7	2.54	0.56
1:EA:1069:A:N7	1:EA:1073:A:N6	2.53	0.56
1:GA:1789:A:OP2	3:GC:220:ARG:NH1	2.39	0.56
33:DA:1299:A:H2'	33:DA:1299:A:N3	2.20	0.56
33:BA:1299:A:H2'	33:BA:1299:A:N3	2.19	0.56
12:AL:79:LEU:HA	12:AL:82:LEU:HD11	1.88	0.56
43:DK:13:ARG:HG2	43:DK:14:LYS:H	1.69	0.56
1:EA:2356:U:H5''	23:EW:16:GLU:HG2	1.88	0.56
1:CA:1913:A:H62	33:DA:1493:A:H2'	1.69	0.56
12:AL:93:ASN:OD1	12:AL:94:THR:N	2.37	0.56
3:GC:68:ARG:NE	3:GC:103:ILE:HD11	2.21	0.56
16:GP:50:ARG:CD	16:GP:51:ASN:H	2.18	0.56
10:CJ:80:HIS:O	10:CJ:82:GLY:N	2.39	0.56
33:DA:607:A:C2	33:DA:608:A:C4	2.94	0.56
19:ES:17:VAL:C	19:ES:18:ARG:O	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:GQ:86:SER:O	17:GQ:88:GLU:N	2.38	0.56
1:CA:229:C:OP2	59:CA:3236:HOH:O	2.17	0.56
3:CC:14:HIS:O	3:CC:203:VAL:HG11	2.05	0.56
1:CA:1437:C:H2'	1:CA:1438:U:C6	2.40	0.56
54:FV:418:ILE:HG21	54:FV:466:LEU:HD23	1.87	0.56
33:DA:722:G:O2'	33:DA:724:G:OP1	2.16	0.56
14:AN:38:LEU:HB3	14:AN:39:PRO:HD3	1.87	0.56
7:GG:30:GLY:O	7:GG:32:LEU:N	2.37	0.56
42:HJ:91:ASP:OD1	42:HJ:92:LEU:N	2.34	0.56
33:BA:408:A:OP1	36:BD:110:THR:HG21	2.06	0.56
43:HK:81:ASN:CB	43:HK:106:ARG:O	2.54	0.56
1:GA:453:A:OP1	59:GA:3238:HOH:O	2.17	0.56
7:GG:84:LYS:HZ3	7:GG:133:LYS:HG2	1.71	0.56
10:GJ:110:PRO:HB2	10:GJ:111:LYS:HG2	1.88	0.56
9:AI:23:VAL:HG23	9:AI:24:GLY:H	1.70	0.56
6:GF:134:GLN:O	6:GF:136:ILE:N	2.33	0.56
54:DV:190:ALA:N	54:DV:205:GLU:O	2.39	0.56
15:AO:66:GLY:HA2	15:AO:102:ARG:NH1	2.20	0.56
1:AA:534:U:O2'	17:AQ:48:ASP:OD2	2.23	0.56
1:GA:931:U:OP1	26:GZ:29:ARG:NH1	2.38	0.56
16:CP:83:ILE:O	16:CP:83:ILE:HG12	2.04	0.56
3:EC:107:LYS:N	3:EC:193:GLU:O	2.35	0.56
49:FQ:48:ASP:HB2	49:FQ:75:LEU:HD23	1.87	0.56
54:BV:142:ASN:OD1	54:BV:143:LYS:N	2.34	0.56
23:CW:72:GLY:O	23:CW:74:LYS:N	2.35	0.56
1:CA:1300:G:H4'	1:CA:1301:A:H5'	1.88	0.56
37:DE:45:ARG:HA	37:DE:72:ILE:O	2.05	0.56
1:EA:1605:C:C2'	1:EA:1606:C:H5'	2.35	0.56
1:EA:1993:U:H4'	4:ED:133:THR:HG21	1.86	0.56
1:CA:1779:U:H5	1:CA:1784:A:N7	2.04	0.56
36:HD:58:LYS:NZ	36:HD:69:GLU:OE2	2.38	0.56
1:CA:2354:C:H4'	23:CW:31:LEU:HD22	1.87	0.56
54:HV:586:VAL:HG22	54:HV:587:ASP:N	2.21	0.56
33:HA:769:G:O6	59:HA:1755:HOH:O	2.17	0.56
17:AQ:60:TRP:CE2	17:AQ:93:ILE:HB	2.41	0.56
23:CW:24:ARG:CZ	23:CW:65:LYS:HB2	2.36	0.56
15:GO:2:ASP:O	15:GO:4:LYS:N	2.39	0.56
54:HV:190:ALA:N	54:HV:205:GLU:O	2.38	0.56
1:EA:527:C:H4'	1:EA:528:A:O5'	2.05	0.56
4:AD:98:VAL:HG12	4:AD:180:VAL:HG13	1.87	0.56
15:CO:31:THR:HG22	15:CO:34:HIS:H	1.71	0.56
4:AD:186:LEU:HD11	16:AP:3:ILE:HG21	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:77:ALA:HB1	15:AO:81:ARG:HH22	1.70	0.56
1:GA:2766:A:C2	1:GA:2767:C:C6	2.93	0.56
11:AK:98:ARG:HA	11:AK:118:LEU:HD23	1.87	0.56
21:EU:53:GLN:N	21:EU:54:PRO:HD2	2.20	0.56
1:EA:2803:G:H2'	1:EA:2804:U:C6	2.40	0.56
1:CA:468:G:N7	29:C2:39:ARG:NH2	2.54	0.56
33:FA:143:A:H5'	33:FA:144:G:H5'	1.88	0.56
9:EI:7:TYR:HA	9:EI:58:ILE:HB	1.87	0.56
1:GA:2557:G:H2'	1:GA:2558:C:C6	2.41	0.56
43:HK:14:LYS:O	43:HK:15:GLN:HB3	2.06	0.56
43:HK:74:VAL:CG2	43:HK:79:ILE:HD12	2.36	0.56
1:GA:1095:A:C4	54:HV:632:ILE:CG1	2.89	0.56
1:GA:1095:A:C4	54:HV:632:ILE:HG13	2.41	0.56
32:E5:93:ALA:CA	32:E5:130:PRO:HG2	2.35	0.56
19:AS:71:VAL:HG23	19:AS:71:VAL:O	2.05	0.56
33:DA:41:G:H2'	33:DA:42:G:H8	1.70	0.56
36:BD:65:TYR:CE2	36:BD:94:LEU:HB3	2.41	0.56
44:BL:44:LYS:CB	44:BL:45:PRO:HD3	2.36	0.56
1:AA:2834:G:H2'	1:AA:2879:A:N6	2.21	0.56
1:GA:2311:A:H3'	1:GA:2312:U:C6	2.41	0.56
8:CH:9:VAL:HG11	8:CH:12:LEU:HD12	1.86	0.56
33:DA:1049:U:C2	33:DA:1201:A:C2	2.93	0.56
49:DQ:12:VAL:HG22	49:DQ:21:ILE:HD11	1.87	0.56
14:EN:100:CYS:SG	14:EN:101:GLY:N	2.78	0.56
1:EA:1425:G:H2'	1:EA:1426:G:C8	2.41	0.56
43:HK:21:ALA:CB	43:HK:82:LEU:HD13	2.36	0.56
33:DA:263:A:OP1	52:DT:74:ARG:NH1	2.39	0.56
44:FL:72:HIS:ND1	44:FL:73:ASN:O	2.35	0.56
1:GA:2275:C:O2'	13:GM:83:GLY:O	2.22	0.56
49:DQ:50:ASN:O	49:DQ:52:GLU:N	2.38	0.56
12:AL:77:ILE:CD1	12:AL:108:ALA:HB1	2.36	0.56
3:GC:14:HIS:O	3:GC:203:VAL:HG11	2.06	0.56
21:CU:1:ALA:HB1	21:CU:84:PHE:CZ	2.41	0.56
52:BT:81:ALA:O	52:BT:85:LYS:NZ	2.36	0.56
33:FA:1530:G:H2'	33:FA:1531:A:C8	2.41	0.56
32:E5:24:SER:CB	32:E5:116:GLU:CG	2.67	0.56
53:DU:34:ARG:HH21	53:DU:35:ARG:HD2	1.71	0.56
1:EA:882:G:H2'	1:EA:883:G:H5'	1.88	0.56
36:DD:27:ALA:O	36:DD:31:LYS:NZ	2.37	0.56
1:GA:1926:U:H2'	1:GA:1927:A:C8	2.41	0.56
33:FA:1277:C:O2'	33:FA:1279:G:H8	1.89	0.56
23:AW:51:GLY:HA3	23:AW:59:PHE:CE1	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BJ:35:GLN:HG3	42:BJ:36:VAL:N	2.21	0.56
26:EZ:23:LEU:HD21	26:EZ:53:MET:HE1	1.88	0.56
1:AA:172:A:H2'	1:AA:173:A:C8	2.40	0.56
54:BV:217:GLU:O	54:BV:220:GLN:N	2.38	0.56
33:FA:844:G:C2'	33:FA:845:A:H5''	2.36	0.56
9:GI:2:LYS:HG3	9:GI:3:LYS:H	1.71	0.56
47:DO:39:LEU:O	47:DO:42:HIS:N	2.38	0.56
5:EE:149:ILE:HD11	5:EE:172:ALA:HA	1.88	0.56
33:FA:1124:G:H3'	33:FA:1145:A:H62	1.71	0.56
38:HF:3:HIS:H	38:HF:92:THR:HG23	1.70	0.56
41:BI:21:ILE:HG23	41:BI:61:LEU:HD13	1.87	0.56
1:EA:2821:A:OP2	14:EN:3:HIS:NE2	2.39	0.56
1:EA:2019:A:H4'	17:EQ:33:VAL:HG21	1.87	0.56
5:EE:77:ILE:HG12	5:EE:78:TRP:CE3	2.41	0.56
1:EA:1533:C:C4	1:EA:1534:U:C5	2.94	0.56
33:BA:880:C:OP2	44:BL:3:THR:HG21	2.06	0.56
1:EA:2016:U:H2'	1:EA:2017:U:C6	2.41	0.56
39:HG:15:ASP:HB3	39:HG:20:SER:H	1.71	0.56
15:AO:53:THR:HB	15:AO:65:THR:CG2	2.36	0.56
1:CA:85:G:OP1	21:CU:6:ARG:N	2.39	0.56
33:HA:1243:C:OP1	59:HA:1792:HOH:O	2.18	0.56
33:DA:572:A:OP1	59:DA:1736:HOH:O	2.18	0.55
1:AA:1722:A:C6	1:AA:1739:A:C4	2.94	0.55
15:GO:34:HIS:O	15:GO:102:ARG:NH1	2.37	0.55
12:CL:110:VAL:O	12:CL:111:ILE:HB	2.07	0.55
11:AK:15:GLY:O	11:AK:46:ALA:HA	2.06	0.55
1:CA:1605:C:H2'	1:CA:1606:C:H5'	1.88	0.55
33:BA:577:G:C8	33:BA:816:A:C6	2.94	0.55
1:CA:1277:G:H5'	14:CN:20:MET:HE2	1.86	0.55
1:EA:2362:C:OP1	30:E3:39:ARG:NH1	2.39	0.55
27:C0:24:VAL:O	27:C0:25:THR:OG1	2.22	0.55
36:FD:48:LEU:HD21	36:FD:53:VAL:N	2.21	0.55
33:HA:1313:U:H3	33:HA:1324:A:H61	1.53	0.55
21:EU:85:ARG:HD3	21:EU:86:PHE:N	2.21	0.55
41:BI:44:ALA:HB1	41:BI:76:ALA:CB	2.36	0.55
9:EI:20:SER:HB3	9:EI:21:PRO:HD3	1.89	0.55
1:AA:597:G:C2	1:AA:661:A:C2	2.94	0.55
54:DV:382:ILE:O	54:DV:382:ILE:HD12	2.06	0.55
33:DA:381:C:H2'	33:DA:382:A:O4'	2.05	0.55
16:EP:13:LYS:NZ	16:EP:80:VAL:HG12	2.20	0.55
1:AA:855:G:N3	23:AW:23:LYS:HD2	2.21	0.55
33:HA:1003:G:N2	33:HA:1005:A:H5'	2.21	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:26:VAL:O	32:A5:27:VAL:HB	2.06	0.55
18:AR:68:ARG:HD3	18:AR:92:TRP:CE2	2.41	0.55
33:BA:701:U:H5''	33:BA:703:G:C4	2.42	0.55
23:AW:17:ALA:HA	23:AW:35:ILE:HG23	1.89	0.55
23:AW:37:VAL:HB	23:AW:38:ARG:HD2	1.88	0.55
23:AW:76:ARG:HH21	23:AW:76:ARG:CG	2.19	0.55
33:HA:411:A:OP1	36:HD:26:ARG:NH2	2.39	0.55
6:AF:2:LYS:HG2	6:AF:3:LEU:HD22	1.88	0.55
32:E5:47:GLU:HG2	32:E5:95:LEU:HD21	1.86	0.55
51:DS:36:ARG:HH12	51:DS:77:THR:HG22	1.70	0.55
33:BA:1413:A:C2	33:BA:1488:G:C2	2.94	0.55
22:CV:36:ALA:O	22:CV:93:ARG:NH1	2.37	0.55
51:FS:3:ARG:O	51:FS:4:SER:OG	2.23	0.55
54:FV:418:ILE:HG12	54:FV:483:VAL:HG12	1.88	0.55
33:FA:1299:A:H2'	33:FA:1299:A:N3	2.22	0.55
33:BA:600:A:H2'	33:BA:601:G:H8	1.71	0.55
45:DM:4:ILE:O	45:DM:6:GLY:N	2.40	0.55
54:BV:414:PRO:HA	54:BV:461:MET:SD	2.45	0.55
3:AC:176:ARG:HH21	3:AC:176:ARG:CG	2.19	0.55
1:GA:653:U:H3'	1:GA:654:A:H5''	1.88	0.55
35:BC:8:ASN:OD1	35:BC:16:LYS:NZ	2.37	0.55
33:HA:1192:C:OP2	35:HC:4:LYS:NZ	2.32	0.55
44:HL:24:LEU:O	44:HL:26:ALA:N	2.39	0.55
20:GT:50:LEU:H	20:GT:50:LEU:HD12	1.71	0.55
54:BV:127:TRP:HH2	54:BV:262:ILE:HD13	1.70	0.55
7:CG:84:LYS:HG2	7:CG:85:LYS:H	1.71	0.55
7:AG:12:ALA:HB2	1:EA:2790:U:H2'	1.87	0.55
54:BV:545:ILE:HD11	54:BV:581:GLY:HA3	1.87	0.55
4:GD:55:LYS:NZ	4:GD:60:VAL:HA	2.21	0.55
4:GD:106:LYS:O	4:GD:107:VAL:HB	2.05	0.55
34:DB:187:ASP:HB2	34:DB:203:ASP:HB3	1.88	0.55
1:AA:2821:A:H4'	4:AD:167:ASN:OD1	2.05	0.55
33:BA:131:A:H2'	33:BA:132:C:C6	2.42	0.55
1:EA:998:C:OP2	17:EQ:57:ARG:NH2	2.39	0.55
17:EQ:60:TRP:CZ2	17:EQ:93:ILE:HB	2.41	0.55
1:AA:2884:U:H5	27:A0:39:ARG:CZ	2.19	0.55
32:A5:26:VAL:CG2	32:A5:115:GLY:H	2.19	0.55
23:AW:18:LYS:HG3	23:AW:19:ARG:H	1.71	0.55
33:FA:1491:G:H2'	55:FW:6:5OH:CA	2.35	0.55
4:GD:12:THR:HG22	4:GD:13:ARG:N	2.22	0.55
4:AD:82:PHE:CE2	4:AD:202:ILE:HD11	2.41	0.55
1:EA:528:A:OP2	10:EJ:116:ARG:NH2	2.37	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:528:A:H2	1:CA:2043:C:H4'	1.69	0.55
31:A4:36:ARG:HG2	31:A4:37:GLN:H	1.71	0.55
28:E1:32:LYS:HA	28:E1:51:ALA:HB3	1.89	0.55
5:EE:148:ILE:HA	5:EE:187:VAL:HB	1.87	0.55
4:AD:11:MET:HE1	4:AD:192:ALA:HA	1.88	0.55
1:AA:666:A:H4'	12:AL:48:ARG:HD2	1.87	0.55
1:GA:2145:C:H3'	1:GA:2146:C:H5''	1.89	0.55
12:GL:101:ILE:HG23	12:GL:105:ILE:HG13	1.88	0.55
1:CA:2134:A:H2'	1:CA:2135:A:C8	2.41	0.55
11:EK:18:ARG:HB2	11:EK:45:GLU:CG	2.37	0.55
54:FV:679:SER:OG	54:FV:680:TYR:N	2.39	0.55
1:GA:2362:C:OP1	30:G3:39:ARG:NH1	2.38	0.55
1:EA:833:A:H2'	1:EA:834:G:C8	2.42	0.55
10:EJ:64:VAL:HG11	10:EJ:68:LYS:HB2	1.89	0.55
1:EA:2387:U:H1'	23:EW:38:ARG:NE	2.22	0.55
1:AA:2336:A:C6	23:AW:40:ARG:HD2	2.42	0.55
33:BA:769:G:H4'	33:BA:1513:A:H4'	1.89	0.55
3:EC:14:HIS:O	3:EC:203:VAL:HG11	2.07	0.55
25:CY:6:LEU:HD12	25:CY:56:LEU:HD11	1.87	0.55
35:HC:42:TYR:CZ	35:HC:90:VAL:HG21	2.42	0.55
4:AD:186:LEU:HD21	16:AP:7:LEU:HD21	1.87	0.55
4:AD:133:THR:HG23	4:AD:134:HIS:N	2.21	0.55
25:AY:56:LEU:O	25:AY:57:LEU:HB3	2.04	0.55
39:FG:50:LEU:CD1	39:FG:61:ALA:HB1	2.36	0.55
34:BB:209:VAL:HG23	34:BB:210:THR:H	1.70	0.55
26:AZ:8:GLN:O	26:AZ:10:ARG:N	2.39	0.55
38:BF:64:VAL:HG12	38:BF:65:GLU:N	2.22	0.55
35:DC:147:LYS:HB2	35:DC:203:PHE:CD2	2.41	0.55
36:HD:99:ASP:OD1	36:HD:100:ASN:N	2.39	0.55
1:EA:2138:G:H1'	1:EA:2154:A:C6	2.41	0.55
1:AA:646:U:C4	1:AA:2368:C:H1'	2.41	0.55
34:DB:83:ALA:O	34:DB:88:GLN:HG3	2.06	0.55
1:AA:933:A:OP2	59:AA:3575:HOH:O	2.18	0.55
2:CB:11:C:O2'	2:CB:15:A:N6	2.39	0.55
36:DD:107:PHE:CD2	36:DD:145:ILE:HD11	2.41	0.55
22:AV:6:ALA:HB1	22:AV:40:ILE:CG2	2.36	0.55
6:GF:25:MET:O	6:GF:29:ARG:NH1	2.40	0.55
1:GA:752:A:N6	1:GA:2609:U:H3	2.04	0.55
11:CK:5:GLN:HA	11:CK:20:MET:SD	2.46	0.55
18:GR:10:LYS:NZ	18:GR:23:GLU:OE1	2.31	0.55
1:EA:1105:U:H2'	1:EA:1106:G:C8	2.42	0.55
1:CA:2325:G:C6	1:CA:2326:C:N4	2.73	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:27:VAL:HG13	6:AF:29:ARG:HH11	1.72	0.55
33:BA:26:A:N6	33:BA:558:G:O2'	2.35	0.55
33:BA:1033:G:H2'	33:BA:1034:G:C5'	2.37	0.55
9:GI:101:SER:HA	9:GI:140:GLU:HG2	1.89	0.55
1:GA:1440:U:H2'	1:GA:1441:G:C8	2.42	0.55
33:BA:890:G:O2'	33:BA:906:A:N6	2.39	0.55
1:EA:644:A:H2'	1:EA:645:C:O4'	2.07	0.55
1:EA:1605:C:H2'	1:EA:1606:C:H5'	1.89	0.55
21:EU:39:ASN:HB3	21:EU:62:ALA:O	2.07	0.55
50:BR:22:ASP:OD1	50:BR:24:LYS:N	2.32	0.55
11:AK:99:ILE:HG21	11:AK:119:ALA:HB2	1.89	0.55
40:BH:25:VAL:HG23	40:BH:63:LEU:HD21	1.88	0.55
3:CC:144:GLU:HA	3:CC:151:GLY:HA2	1.87	0.55
54:HV:11:ARG:HE	54:HV:283:ILE:HA	1.72	0.55
7:CG:112:VAL:HG23	7:CG:113:ASP:N	2.22	0.55
33:HA:483:C:O2	48:HP:13:LYS:NZ	2.39	0.55
46:HN:21:PHE:HA	46:HN:25:ALA:HB3	1.88	0.55
33:HA:1030:U:H4'	33:HA:1031:C:OP1	2.06	0.55
1:GA:1141:U:H4'	1:GA:1142:A:O4'	2.06	0.55
1:EA:2331:G:O2'	1:EA:2336:A:N1	2.40	0.55
1:GA:2331:G:O2'	23:GW:39:GLN:O	2.15	0.55
37:FE:104:GLY:CA	37:FE:122:ASN:HA	2.37	0.55
18:GR:66:HIS:CG	18:GR:94:THR:HG22	2.42	0.55
43:HK:87:LYS:HA	43:HK:114:THR:HG22	1.89	0.55
46:BN:31:ILE:HD12	46:BN:31:ILE:N	2.20	0.55
33:DA:73:C:H6	33:DA:73:C:H5'	1.71	0.55
1:EA:2531:A:OP1	7:EG:174:LYS:HE3	2.07	0.55
1:AA:1820:U:OP1	3:AC:176:ARG:NH2	2.39	0.55
1:GA:2520:C:C6	1:GA:2567:G:H1'	2.41	0.55
11:CK:105:ARG:N	11:CK:105:ARG:HD3	2.22	0.55
6:GF:60:SER:HB2	6:GF:88:VAL:HG11	1.89	0.55
54:BV:223:ILE:O	54:BV:227:ALA:N	2.38	0.55
49:HQ:21:ILE:HG23	49:HQ:46:VAL:HB	1.87	0.55
1:AA:644:A:H2'	1:AA:645:C:O4'	2.07	0.55
8:CH:2:GLN:HB2	8:CH:39:ALA:HB3	1.89	0.55
1:AA:846:U:HO2'	1:AA:847:U:P	2.30	0.55
40:BH:112:THR:HG23	40:BH:115:ALA:H	1.71	0.55
45:HM:11:ASP:OD1	45:HM:12:HIS:N	2.37	0.55
11:GK:107:LEU:O	11:GK:109:SER:N	2.37	0.55
18:AR:66:HIS:CG	18:AR:94:THR:HG22	2.42	0.55
1:CA:958:U:OP2	13:CM:14:LYS:NZ	2.37	0.55
41:DI:44:ALA:HA	41:DI:47:VAL:HG13	1.87	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:36:GLN:HB3	4:CD:49:GLN:HE21	1.70	0.55
1:EA:994:C:H3'	17:EQ:53:LYS:HE2	1.89	0.55
32:E5:29:ASP:HA	32:E5:108:VAL:HG11	1.89	0.55
43:HK:19:GLY:HA2	43:HK:37:ARG:HG3	1.89	0.55
33:BA:685:G:H4'	43:BK:41:ALA:O	2.06	0.55
36:HD:145:ILE:CD1	36:HD:155:VAL:HG21	2.37	0.55
1:GA:1441:G:H2'	1:GA:1442:U:H6	1.71	0.55
1:GA:1938:A:OP2	59:GA:3718:HOH:O	2.18	0.55
37:BE:46:VAL:CG2	37:BE:118:ALA:HA	2.36	0.55
37:HE:45:ARG:HA	37:HE:72:ILE:O	2.06	0.55
1:GA:2406:A:C2	12:GL:69:ARG:NH2	2.75	0.55
5:EE:4:VAL:HG12	5:EE:6:LYS:H	1.72	0.55
1:EA:1607:C:H4'	1:EA:1608:A:O5'	2.06	0.55
34:HB:40:ILE:HG21	34:HB:201:GLY:HA2	1.88	0.55
33:DA:1279:G:H2'	33:DA:1279:G:N3	2.20	0.55
33:HA:1491:G:H5'	33:HA:1492:A:OP1	2.06	0.55
44:HL:72:HIS:ND1	44:HL:73:ASN:O	2.39	0.55
39:FG:4:ARG:HG3	39:FG:5:ARG:N	2.22	0.55
23:EW:37:VAL:HG12	23:EW:38:ARG:N	2.21	0.55
23:GW:40:ARG:HG3	23:GW:56:HIS:CG	2.42	0.55
1:GA:1064:C:H4'	9:GI:89:SER:HB2	1.89	0.55
1:AA:142:A:H2	20:AT:2:ILE:HG23	1.72	0.55
37:HE:104:GLY:HA2	37:HE:122:ASN:HA	1.88	0.55
1:EA:85:G:P	21:EU:27:VAL:HG11	2.47	0.55
42:DJ:7:ARG:NH1	42:DJ:75:ASP:OD2	2.40	0.55
33:DA:212:G:H2'	33:DA:213:G:H8	1.71	0.55
1:EA:28:A:H1'	1:EA:513:A:C2	2.42	0.55
1:AA:1753:G:OP1	16:AP:92:ARG:NE	2.32	0.55
1:CA:527:C:H4'	1:CA:528:A:O5'	2.06	0.55
3:GC:16:VAL:H	3:GC:203:VAL:HG12	1.71	0.55
1:GA:654:A:N3	1:GA:654:A:H3'	2.21	0.55
35:BC:34:ASP:OD2	46:BN:65:ARG:NH1	2.40	0.55
33:FA:429:U:O3'	36:FD:22:LYS:NZ	2.39	0.55
1:CA:265:A:H4'	1:CA:266:G:OP1	2.07	0.55
54:BV:497:LYS:HG2	54:BV:523:TYR:HB2	1.88	0.55
28:G1:8:ILE:HD12	28:G1:52:LYS:HB2	1.89	0.55
54:DV:697:ALA:O	54:DV:699:ILE:N	2.40	0.55
5:GE:46:GLN:HG3	5:GE:87:ALA:H	1.70	0.55
33:FA:401:C:OP2	36:FD:70:ARG:NH1	2.37	0.55
33:FA:707:U:H2'	33:FA:708:C:C6	2.42	0.55
21:AU:73:ASN:OD1	21:AU:76:THR:N	2.29	0.55
19:ES:33:LEU:HD13	19:ES:51:LEU:HD23	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:33:VAL:HG12	32:A5:34:THR:N	2.20	0.55
1:AA:2328:A:H2'	1:AA:2329:U:C6	2.42	0.55
43:HK:80:LYS:O	43:HK:106:ARG:N	2.34	0.55
23:AW:17:ALA:O	23:AW:18:LYS:HB2	2.06	0.55
33:BA:1468:A:C2'	33:BA:1469:C:H5'	2.36	0.55
16:EP:21:PRO:HD3	16:EP:49:ILE:HD12	1.89	0.55
1:AA:42:A:H2'	1:AA:43:G:C5'	2.37	0.55
1:CA:1731:G:O2'	1:CA:1732:C:H3'	2.06	0.55
53:BU:41:PRO:O	53:BU:45:ARG:HD3	2.06	0.55
37:BE:111:MET:CE	37:BE:125:ALA:HB1	2.37	0.55
1:AA:527:C:H4'	1:AA:528:A:O5'	2.07	0.55
45:HM:74:SER:HA	45:HM:77:ILE:HD12	1.89	0.55
12:CL:77:ILE:HD11	12:CL:108:ALA:HB1	1.88	0.55
1:AA:1458:U:H4'	1:AA:1459:G:O5'	2.07	0.55
1:AA:38:A:O2'	5:AE:43:THR:HA	2.07	0.55
1:AA:443:A:N7	5:AE:40:ARG:HD2	2.21	0.55
33:FA:1180:A:OP2	41:FI:99:ARG:NH2	2.40	0.55
53:FU:40:LYS:N	53:FU:41:PRO:CD	2.69	0.55
33:DA:844:G:H2'	33:DA:845:A:H5''	1.88	0.55
54:DV:164:ALA:HB1	54:DV:262:ILE:HD11	1.89	0.55
1:AA:460:A:P	29:A2:41:ARG:HH12	2.30	0.55
45:FM:29:ARG:NH2	45:FM:63:PHE:HB2	2.22	0.55
44:HL:44:LYS:CB	44:HL:45:PRO:HD3	2.37	0.55
1:CA:586:A:C2	1:CA:1254:A:C2	2.95	0.55
33:DA:1478:U:H2'	33:DA:1479:C:C6	2.42	0.55
25:GY:23:ARG:HA	25:GY:23:ARG:HE	1.72	0.55
3:GC:143:VAL:HB	3:GC:153:LEU:HB2	1.87	0.55
32:E5:116:GLU:CG	32:E5:117:LEU:H	2.20	0.55
16:AP:50:ARG:HD2	16:AP:51:ASN:N	2.22	0.55
1:AA:279:A:N6	1:AA:361:G:H1'	2.22	0.55
1:GA:1925:C:N3	1:GA:1926:U:C4	2.75	0.55
1:GA:1059:G:H21	9:GI:127:SER:HA	1.72	0.55
1:GA:1095:A:C8	54:HV:632:ILE:HB	2.41	0.55
1:AA:2724:U:P	4:AD:116:LYS:HZ2	2.30	0.55
4:CD:118:PHE:HZ	14:CN:1:MET:HB2	1.71	0.55
1:GA:1072:C:N4	1:GA:1094:U:N3	2.55	0.55
18:GR:42:ALA:HA	18:GR:46:GLU:HB2	1.89	0.55
17:CQ:97:ILE:HD13	17:CQ:104:ALA:HB3	1.88	0.55
1:AA:1515:A:HO2'	1:AA:1556:C:HO2'	1.43	0.55
1:EA:594:U:H2'	1:EA:595:C:C6	2.41	0.55
46:FN:45:VAL:HG23	46:FN:46:LEU:H	1.72	0.55
43:FK:88:GLY:H	43:FK:114:THR:CG2	2.20	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1808:A:N1	24:EX:27:ARG:HD2	2.22	0.55
33:BA:71:A:O2'	33:BA:72:A:O4'	2.24	0.55
1:CA:858:G:N2	1:CA:919:U:O4	2.39	0.55
17:EQ:29:ARG:HG3	17:EQ:29:ARG:HH11	1.72	0.55
1:EA:2593:U:O4	59:EA:3781:HOH:O	2.16	0.55
12:GL:127:VAL:HG11	12:GL:142:ILE:HG21	1.89	0.55
32:E5:71:CYS:CB	32:E5:117:LEU:HD12	2.36	0.54
1:GA:2589:A:OP1	59:GA:3313:HOH:O	2.18	0.54
1:CA:2103:C:H2'	1:CA:2104:C:H5'	1.89	0.54
23:CW:37:VAL:HB	23:CW:38:ARG:NH1	2.22	0.54
32:A5:60:LEU:O	32:A5:64:VAL:HB	2.06	0.54
1:EA:1654:A:O2'	4:ED:118:PHE:CD2	2.60	0.54
32:E5:95:LEU:H	32:E5:95:LEU:HD22	1.72	0.54
1:GA:1327:A:N6	1:GA:1328:A:C2	2.74	0.54
1:GA:163:C:O2'	1:GA:164:C:P	2.65	0.54
35:FC:77:ILE:HA	35:FC:84:VAL:HG23	1.88	0.54
15:GO:66:GLY:HA2	15:GO:102:ARG:NH1	2.22	0.54
34:FB:49:PHE:HB2	34:FB:212:TYR:CZ	2.42	0.54
38:HF:91:ARG:HG3	38:HF:92:THR:H	1.71	0.54
16:EP:28:LYS:O	16:EP:80:VAL:O	2.25	0.54
1:CA:577:G:O2'	1:CA:1254:A:OP1	2.25	0.54
34:DB:71:THR:HG22	34:DB:72:LYS:H	1.71	0.54
54:FV:697:ALA:O	54:FV:699:ILE:N	2.40	0.54
36:FD:30:THR:HG22	36:FD:31:LYS:H	1.72	0.54
1:AA:655:A:H4'	1:AA:656:G:OP1	2.05	0.54
46:DN:61:ARG:O	46:DN:62:ASN:HB2	2.06	0.54
1:CA:2287:A:C8	1:CA:2289:G:C8	2.94	0.54
1:CA:545:U:H3'	1:CA:546:U:H4'	1.89	0.54
33:DA:573:A:OP2	59:DA:1737:HOH:O	2.18	0.54
29:G2:1:MET:SD	29:G2:2:LYS:N	2.77	0.54
4:ED:149:ASN:OD1	4:ED:150:GLN:N	2.40	0.54
33:FA:35:G:N3	44:FL:115:SER:OG	2.40	0.54
32:A5:25:ALA:N	32:A5:116:GLU:OE1	2.40	0.54
32:A5:25:ALA:CA	32:A5:116:GLU:OE1	2.55	0.54
32:E5:58:THR:HB	32:E5:82:ILE:HB	1.89	0.54
3:EC:68:ARG:HD3	3:EC:103:ILE:HD11	1.89	0.54
34:BB:19:THR:OG1	34:BB:20:ARG:N	2.40	0.54
55:FW:3:SER:OG	55:FW:3:SER:O	2.21	0.54
1:GA:1012:U:OP2	17:GQ:69:ARG:NH1	2.40	0.54
11:EK:71:ARG:CG	11:EK:105:ARG:NH2	2.71	0.54
16:EP:50:ARG:HG2	16:EP:57:ALA:N	2.22	0.54
1:AA:1722:A:H2'	1:AA:1723:G:O4'	2.08	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1731:G:N2	1:CA:1733:G:O6	2.36	0.54
42:DJ:25:ILE:HG21	42:DJ:74:VAL:HG13	1.88	0.54
1:AA:523:C:H4'	1:AA:540:C:O2	2.07	0.54
36:HD:58:LYS:HG3	36:HD:59:GLN:N	2.22	0.54
1:CA:1053:C:C2	1:CA:1054:A:C8	2.94	0.54
1:EA:971:G:O2'	1:EA:983:A:N3	2.37	0.54
11:CK:99:ILE:HG21	11:CK:119:ALA:HB2	1.89	0.54
1:GA:2210:U:H4'	1:GA:2211:A:H5'	1.89	0.54
33:BA:725:G:OP1	33:BA:833:G:N2	2.39	0.54
35:BC:111:LEU:HD13	35:BC:144:LEU:HD11	1.88	0.54
10:EJ:76:HIS:CE1	10:EJ:85:LYS:HB2	2.42	0.54
33:DA:769:G:H4'	33:DA:1513:A:H4'	1.89	0.54
1:EA:443:A:N7	5:EE:40:ARG:HD3	2.22	0.54
36:BD:151:LYS:HA	36:BD:155:VAL:HG13	1.89	0.54
50:BR:57:ARG:HE	50:BR:61:ARG:NH2	2.05	0.54
33:DA:1077:G:N2	33:DA:1080:A:OP2	2.37	0.54
53:BU:26:ALA:HA	53:BU:29:LEU:HB3	1.87	0.54
42:DJ:16:ARG:HA	42:DJ:19:ASP:OD1	2.07	0.54
38:DF:64:VAL:HG12	38:DF:65:GLU:N	2.21	0.54
1:AA:1028:A:N6	1:AA:1125:G:H2'	2.22	0.54
39:DG:57:SER:OG	39:DG:58:GLU:N	2.37	0.54
33:BA:675:A:C6	33:BA:676:A:C5	2.94	0.54
33:BA:590:U:H2'	33:BA:591:U:C6	2.42	0.54
13:GM:50:ARG:HD3	13:GM:65:ILE:HD11	1.88	0.54
45:HM:66:GLU:O	45:HM:69:LEU:N	2.40	0.54
17:AQ:63:ARG:NH1	17:AQ:96:ASP:HA	2.22	0.54
33:BA:706:A:C2'	33:BA:707:U:H5'	2.37	0.54
4:ED:118:PHE:CD1	4:ED:119:ALA:N	2.75	0.54
39:FG:18:PHE:CE1	39:FG:58:GLU:HG2	2.42	0.54
1:AA:1805:A:N3	3:AC:49:THR:OG1	2.39	0.54
1:EA:2110:G:O3'	1:EA:2148:G:N2	2.34	0.54
1:AA:2406:A:C4	12:AL:69:ARG:NH2	2.76	0.54
1:AA:2365:G:H4'	23:AW:59:PHE:CE1	2.42	0.54
1:CA:2466:C:OP1	31:C4:4:ARG:HG2	2.07	0.54
33:FA:9:G:H5'	37:FE:108:GLY:HA3	1.89	0.54
1:AA:191:A:H2'	1:AA:192:C:H6	1.72	0.54
33:BA:1181:G:O2'	33:BA:1182:G:C8	2.60	0.54
8:CH:5:LEU:HD21	8:CH:12:LEU:HD13	1.89	0.54
36:BD:110:THR:HG23	36:BD:113:GLU:H	1.71	0.54
35:FC:11:ARG:NH2	35:FC:182:ILE:HG13	2.23	0.54
10:CJ:17:VAL:HG23	10:CJ:137:PRO:HB2	1.88	0.54
48:FP:54:LEU:HD22	48:FP:80:LYS:HD2	1.88	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1532:A:N6	1:AA:1534:U:O4	2.41	0.54
1:EA:1731:G:H1'	1:EA:1733:G:O4'	2.07	0.54
50:HR:34:THR:OG1	50:HR:35:GLU:N	2.40	0.54
33:BA:263:A:OP1	52:BT:74:ARG:NH1	2.38	0.54
33:HA:1368:A:OP1	41:HI:113:ARG:NH2	2.39	0.54
35:DC:123:GLN:HB3	35:DC:128:VAL:HG11	1.90	0.54
1:GA:1385:A:H1'	1:GA:1386:C:C6	2.43	0.54
50:FR:27:ALA:HA	50:FR:30:LYS:HE3	1.89	0.54
33:HA:1126:U:N3	33:HA:1280:A:OP1	2.39	0.54
36:BD:156:LYS:NZ	1:CA:1541:C:OP1	2.40	0.54
33:BA:1198:G:O6	59:BA:1781:HOH:O	2.18	0.54
1:CA:1271:G:OP2	59:CA:3382:HOH:O	2.18	0.54
36:BD:105:MET:SD	36:BD:143:VAL:CG1	2.96	0.54
1:EA:2557:G:H2'	1:EA:2558:C:C6	2.42	0.54
54:DV:142:ASN:OD1	54:DV:143:LYS:N	2.39	0.54
4:CD:124:ARG:NH1	4:CD:164:GLN:O	2.40	0.54
3:GC:115:ILE:HG22	3:GC:116:GLN:N	2.22	0.54
33:BA:564:C:N4	59:BA:1733:HOH:O	2.26	0.54
5:EE:128:ALA:O	5:EE:130:LYS:N	2.41	0.54
8:EH:2:GLN:O	8:EH:3:VAL:HG22	2.07	0.54
1:GA:1607:C:H4'	1:GA:1608:A:O5'	2.07	0.54
13:EM:24:THR:O	13:EM:24:THR:OG1	2.25	0.54
33:HA:9:G:H5'	37:HE:108:GLY:HA3	1.89	0.54
17:EQ:91:ARG:HB2	17:EQ:94:LEU:HB2	1.89	0.54
1:GA:1079:C:C2'	1:GA:1080:A:H5''	2.38	0.54
3:GC:255:LYS:O	3:GC:256:THR:HG22	2.07	0.54
33:FA:263:A:P	52:FT:74:ARG:NH1	2.81	0.54
11:EK:70:ARG:O	11:EK:71:ARG:HB2	2.08	0.54
1:EA:2146:C:H4'	1:EA:2147:A:OP1	2.06	0.54
1:CA:2742:G:OP1	31:C4:36:ARG:HD3	2.07	0.54
1:GA:1442:U:H2'	1:GA:1443:U:C6	2.42	0.54
6:AF:105:ILE:HD11	6:AF:138:PRO:HG2	1.90	0.54
11:CK:105:ARG:H	11:CK:105:ARG:HD3	1.73	0.54
33:BA:71:A:C2	33:BA:72:A:C4	2.96	0.54
1:EA:666:A:H4'	12:EL:48:ARG:HD2	1.89	0.54
12:GL:87:GLY:O	12:GL:89:VAL:N	2.41	0.54
1:GA:2205:A:OP1	3:GC:67:LYS:NZ	2.40	0.54
1:CA:1428:C:C5	1:CA:1569:A:H5''	2.43	0.54
33:HA:392:C:OP1	48:HP:8:ARG:NH2	2.40	0.54
16:EP:19:PHE:CD1	16:EP:19:PHE:N	2.76	0.54
7:AG:84:LYS:HG3	7:AG:131:VAL:HA	1.87	0.54
17:AQ:78:PHE:CZ	17:AQ:82:LEU:HD11	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:63:ILE:HA	16:CP:68:GLY:HA2	1.89	0.54
33:DA:1084:G:C5	33:DA:1085:U:C4	2.96	0.54
1:AA:2152:G:H2'	1:AA:2153:C:O4'	2.07	0.54
1:AA:2615:U:C2	27:A0:3:GLN:HA	2.42	0.54
33:DA:482:A:C2	33:DA:483:C:H1'	2.42	0.54
1:AA:37:C:O2'	5:AE:45:ALA:HA	2.08	0.54
52:DT:70:ASN:N	52:DT:70:ASN:OD1	2.41	0.54
10:AJ:4:PHE:CG	10:AJ:5:THR:N	2.75	0.54
43:HK:70:CYS:SG	43:HK:71:ALA:N	2.81	0.54
23:CW:18:LYS:HA	23:CW:36:ILE:HB	1.90	0.54
3:EC:68:ARG:NE	3:EC:103:ILE:HD11	2.22	0.54
54:DV:591:LEU:O	54:DV:594:LYS:N	2.40	0.54
37:FE:111:MET:HE1	37:FE:125:ALA:HB1	1.90	0.54
1:EA:1654:A:O2'	4:ED:118:PHE:CG	2.60	0.54
1:EA:2155:U:H2'	1:EA:2156:G:H5'	1.90	0.54
32:E5:23:LEU:H	32:E5:87:GLU:HB2	1.73	0.54
1:AA:1080:A:H1'	9:AI:127:SER:HA	1.88	0.54
9:GI:18:ASN:N	9:GI:19:PRO:HD3	2.21	0.54
1:EA:958:U:H2'	2:EB:89:U:C6	2.43	0.54
6:GF:3:LEU:HA	6:GF:6:TYR:HB2	1.88	0.54
1:AA:1722:A:C6	1:AA:1723:G:C4	2.96	0.54
52:FT:62:ALA:HA	52:FT:67:ILE:HG22	1.88	0.54
1:EA:518:G:H4'	19:ES:18:ARG:NH1	2.22	0.54
22:GV:2:PHE:HB3	22:GV:50:MET:HE1	1.90	0.54
34:DB:67:LEU:HD21	34:DB:91:VAL:HG23	1.88	0.54
1:CA:1993:U:H4'	4:CD:133:THR:HG21	1.88	0.54
33:DA:962:C:H1'	33:DA:1201:A:H62	1.71	0.54
1:GA:1386:C:H2'	1:GA:1387:A:C8	2.42	0.54
41:FI:54:LEU:HD21	41:FI:101:ALA:CB	2.37	0.54
50:BR:25:ASP:O	50:BR:28:THR:N	2.41	0.54
34:BB:69:VAL:HG23	34:BB:162:VAL:HB	1.89	0.54
18:AR:60:LYS:H	18:AR:100:GLY:HA3	1.72	0.54
33:HA:1123:U:H4'	42:HJ:39:PRO:HD2	1.88	0.54
2:AB:41:G:H2'	6:AF:65:LEU:HD13	1.89	0.54
1:EA:2447:G:N2	59:EA:3680:HOH:O	2.03	0.54
1:EA:479:A:N3	1:EA:481:G:H5''	2.21	0.54
20:ET:54:GLU:HB2	20:ET:88:LYS:HG3	1.90	0.54
38:DF:75:GLU:O	38:DF:78:PHE:N	2.38	0.54
9:AI:102:ARG:HD2	9:AI:102:ARG:H	1.72	0.54
1:GA:1794:A:H2'	1:GA:1795:C:C6	2.42	0.54
24:EX:70:LEU:HD13	24:EX:75:GLU:CB	2.38	0.54
20:AT:32:LEU:H	20:AT:83:ALA:HB3	1.73	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:GF:101:ARG:HA	6:GF:104:THR:HG22	1.89	0.54
36:BD:197:GLU:O	36:BD:200:ILE:N	2.40	0.54
1:EA:1025:G:H4'	1:EA:1026:G:OP2	2.07	0.54
2:GB:78:A:OP2	22:GV:18:ARG:NH2	2.34	0.54
33:BA:710:G:OP1	38:BF:53:LYS:NZ	2.34	0.54
10:CJ:4:PHE:CG	10:CJ:5:THR:N	2.76	0.54
1:GA:1067:A:N3	54:HV:645:GLN:NE2	2.56	0.54
1:AA:84:A:N1	1:AA:98:G:O2'	2.36	0.54
41:FI:45:ARG:O	41:FI:47:VAL:N	2.40	0.54
44:FL:24:LEU:O	44:FL:26:ALA:N	2.40	0.54
11:EK:76:VAL:HB	16:EP:72:VAL:HG22	1.89	0.54
43:BK:35:THR:HG21	43:BK:39:GLY:HA2	1.89	0.54
49:BQ:50:ASN:O	49:BQ:52:GLU:N	2.40	0.54
1:CA:138:U:OP1	1:CA:139:U:H3'	2.07	0.54
1:CA:1485:U:H2'	1:CA:1486:U:C6	2.42	0.54
1:CA:475:C:C4	1:CA:481:G:O6	2.60	0.54
24:CX:36:ARG:HG2	24:CX:47:THR:HG22	1.89	0.54
1:CA:323:C:N4	1:CA:333:G:N7	2.56	0.54
1:CA:1031:G:H4'	31:C4:6:SER:HB2	1.89	0.54
33:DA:250:A:H4'	33:DA:251:G:O5'	2.06	0.54
33:HA:1478:U:H2'	33:HA:1479:C:C6	2.43	0.54
12:GL:74:THR:HG22	12:GL:107:PHE:HB2	1.89	0.54
16:EP:4:ILE:HG22	16:EP:5:LYS:H	1.72	0.54
1:AA:1779:U:H5	1:AA:1784:A:N7	2.05	0.54
33:DA:446:G:N2	33:DA:489:C:C2	2.75	0.54
1:GA:322:A:H5'	1:GA:340:A:H1'	1.88	0.54
5:AE:108:ILE:HD12	12:AL:2:ARG:NH2	2.23	0.54
1:AA:1509:A:HO2'	1:AA:1510:G:P	2.31	0.54
10:AJ:6:ALA:HB3	10:AJ:45:THR:HG21	1.89	0.54
33:FA:913:A:H4'	33:FA:914:A:O5'	2.07	0.54
1:GA:1079:C:H2'	1:GA:1080:A:H5''	1.89	0.54
1:CA:2101:A:C2	1:CA:2102:G:N2	2.76	0.54
23:AW:37:VAL:HG13	23:AW:55:ASP:C	2.28	0.54
1:AA:1336:A:P	20:AT:68:LYS:HZ2	2.31	0.54
1:GA:823:C:H42	1:GA:834:G:H1	1.56	0.54
4:ED:68:PHE:C	4:ED:73:VAL:HG12	2.27	0.54
1:AA:523:C:O3'	1:AA:539:G:N2	2.41	0.54
49:BQ:12:VAL:HG12	49:BQ:13:VAL:H	1.72	0.54
7:CG:84:LYS:N	7:CG:84:LYS:HD2	2.22	0.54
38:BF:9:MET:HG3	38:BF:85:ILE:HG13	1.90	0.54
20:CT:29:THR:CA	20:CT:86:THR:HA	2.38	0.54
1:AA:2880:C:H1'	14:AN:92:GLY:H	1.73	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1297:C:O2	1:AA:1643:G:N2	2.31	0.54
1:GA:2135:A:N6	1:GA:2156:G:O2'	2.41	0.54
50:HR:32:TYR:CD2	50:HR:55:LEU:HD21	2.43	0.54
13:AM:35:ALA:O	13:AM:37:GLY:N	2.37	0.54
1:AA:495:G:N3	19:AS:61:ASN:ND2	2.49	0.54
4:CD:151:THR:HG22	4:CD:152:PRO:HD3	1.88	0.54
54:HV:127:TRP:HH2	54:HV:262:ILE:HD13	1.72	0.54
1:AA:594:U:H2'	1:AA:595:C:C6	2.43	0.54
1:GA:1869:G:H3'	1:GA:1870:C:H5''	1.90	0.54
1:EA:170:U:H2'	1:EA:171:U:C6	2.43	0.54
47:FO:71:LYS:HD3	47:FO:78:TYR:CZ	2.43	0.54
32:A5:71:CYS:HA	32:A5:117:LEU:HD11	1.87	0.54
1:GA:996:A:H4'	17:GQ:91:ARG:NE	2.23	0.54
23:EW:23:LYS:CE	23:EW:24:ARG:HB3	2.38	0.54
33:FA:972:C:P	42:FJ:59:LYS:HD3	2.47	0.54
1:EA:2324:U:H3'	1:EA:2325:G:C5'	2.36	0.54
1:AA:945:A:C5	1:AA:2448:A:C2	2.95	0.54
33:HA:409:U:H5''	36:HD:25:VAL:CG2	2.38	0.54
1:CA:983:A:N6	1:CA:984:A:N1	2.55	0.54
14:AN:37:THR:OG1	14:AN:40:LYS:HD2	2.08	0.54
34:FB:57:ASN:HB2	34:FB:219:THR:CG2	2.37	0.54
52:FT:68:HIS:C	52:FT:69:LYS:HG3	2.28	0.54
37:HE:81:LEU:CD2	37:HE:123:VAL:HG12	2.37	0.54
9:AI:20:SER:HB3	9:AI:21:PRO:HD3	1.89	0.54
53:BU:44:GLU:O	53:BU:48:ALA:N	2.40	0.54
36:HD:72:PHE:CE2	36:HD:200:ILE:HD11	2.42	0.54
34:FB:46:VAL:HA	34:FB:49:PHE:CZ	2.43	0.54
6:GF:39:VAL:HG13	6:GF:40:GLY:H	1.73	0.54
12:AL:79:LEU:H	12:AL:113:ALA:HB3	1.73	0.54
28:C1:50:GLU:HG2	28:C1:51:ALA:N	2.22	0.54
33:DA:1086:U:O2'	33:DA:1087:G:H5'	2.08	0.54
39:DG:15:ASP:OD1	39:DG:44:TYR:OH	2.24	0.54
54:HV:221:ASN:HA	54:HV:224:GLU:HB3	1.90	0.54
1:CA:324:A:N6	1:CA:338:G:O2'	2.41	0.54
9:EI:89:SER:HA	9:EI:97:VAL:HG21	1.90	0.54
38:HF:51:ILE:HG21	38:HF:85:ILE:HD12	1.90	0.54
7:EG:39:ALA:HA	7:EG:57:TYR:CD2	2.43	0.54
33:FA:951:G:OP2	45:FM:101:ARG:NH2	2.41	0.54
33:HA:204:G:H3'	33:HA:205:A:H5''	1.90	0.54
1:AA:2280:G:C2	1:AA:2281:A:C8	2.96	0.54
1:CA:1604:C:H5'	59:CA:3404:HOH:O	2.08	0.54
1:AA:855:G:C2	23:AW:23:LYS:HD2	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BI:29:VAL:HB	41:BI:64:TYR:HA	1.89	0.54
43:BK:111:THR:HA	53:BU:4:ILE:O	2.07	0.54
1:EA:2582:G:C2	1:EA:2583:G:C8	2.95	0.54
23:CW:39:GLN:HG3	23:CW:41:GLY:O	2.07	0.54
54:HV:646:GLU:O	54:HV:647:SER:HB2	2.08	0.54
1:AA:2313:C:H2'	1:AA:2314:A:H8	1.73	0.54
17:AQ:81:GLY:HA2	17:AQ:116:LEU:CD1	2.38	0.54
43:HK:53:ARG:NH2	43:HK:54:GLY:O	2.41	0.54
1:AA:645:C:O2'	1:AA:645:C:O2	2.21	0.54
1:AA:460:A:OP1	29:A2:41:ARG:NH1	2.41	0.54
12:GL:110:VAL:O	12:GL:111:ILE:HB	2.07	0.54
1:EA:910:A:N3	1:EA:2264:C:O2'	2.38	0.54
24:CX:34:SER:OG	24:CX:34:SER:O	2.26	0.54
34:DB:13:VAL:HG23	34:DB:207:ARG:NH1	2.23	0.54
16:AP:63:ILE:HA	16:AP:68:GLY:HA2	1.90	0.54
33:HA:954:G:H2'	33:HA:955:U:C6	2.42	0.54
33:HA:451:A:H4'	33:HA:452:A:O5'	2.08	0.54
54:FV:556:GLY:HA3	54:FV:597:ALA:HB3	1.88	0.54
1:AA:383:C:N3	1:AA:391:A:N6	2.56	0.54
41:BI:96:SER:O	41:BI:100:LYS:HG3	2.07	0.54
33:HA:1053:G:N7	33:HA:1200:C:H5''	2.23	0.54
1:CA:1386:C:H2'	1:CA:1387:A:C8	2.43	0.54
1:AA:265:A:H4'	1:AA:266:G:OP1	2.07	0.54
6:EF:175:PRO:O	6:EF:176:PHE:CG	2.60	0.54
35:HC:7:PRO:HG2	35:HC:184:TYR:CG	2.43	0.54
1:CA:1028:A:N6	1:CA:1125:G:H2'	2.23	0.54
39:FG:97:ASN:OD1	39:FG:97:ASN:N	2.41	0.54
5:EE:150:THR:HG21	5:EE:153:LEU:HA	1.88	0.54
3:CC:63:ILE:HG22	3:CC:64:VAL:N	2.22	0.54
1:CA:1354:A:OP1	3:CC:35:LYS:NZ	2.40	0.54
1:CA:2502:G:H5'	1:CA:2503:A:H5''	1.89	0.54
33:DA:426:U:H5''	36:DD:37:ALA:HB1	1.90	0.54
1:GA:1095:A:H61	54:HV:623:THR:HG21	1.72	0.54
42:HJ:35:GLN:CG	42:HJ:37:ARG:HE	2.21	0.54
44:FL:3:THR:HG22	44:FL:5:ASN:N	2.23	0.54
10:GJ:64:VAL:HG13	10:GJ:65:THR:N	2.23	0.54
49:BQ:50:ASN:ND2	49:BQ:50:ASN:O	2.41	0.54
6:AF:35:LEU:HD22	6:AF:35:LEU:N	2.23	0.54
1:GA:1070:A:C2	9:GI:8:VAL:HA	2.42	0.54
53:BU:44:GLU:HA	53:BU:47:ARG:HB3	1.90	0.54
4:CD:106:LYS:HB3	4:CD:206:ALA:CB	2.38	0.54
1:AA:192:C:OP1	59:AA:3733:HOH:O	2.19	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:600:A:H2'	33:BA:601:G:C8	2.43	0.54
1:CA:1272:A:OP1	59:CA:3382:HOH:O	2.18	0.54
33:HA:1077:G:N2	33:HA:1080:A:OP2	2.38	0.54
39:BG:57:SER:OG	39:BG:58:GLU:N	2.37	0.54
33:FA:484:G:H4'	33:FA:485:U:O5'	2.08	0.54
33:DA:1417:G:O6	59:DA:1792:HOH:O	2.18	0.54
37:BE:44:GLY:HA2	37:BE:76:LEU:HD13	1.90	0.54
1:EA:2800:A:H3'	1:EA:2801:G:C5'	2.38	0.54
41:HI:10:GLY:HA2	41:HI:81:HIS:CD2	2.43	0.54
1:CA:1936:A:H2	1:CA:1943:U:C5	2.26	0.54
12:GL:77:ILE:CD1	12:GL:108:ALA:HB1	2.38	0.54
4:GD:62:LYS:HB2	4:GD:63:PRO:HD3	1.89	0.54
44:DL:24:LEU:O	44:DL:26:ALA:N	2.41	0.54
33:DA:652:U:O2'	33:DA:653:U:OP2	2.21	0.54
1:GA:2547:A:H2'	1:GA:2548:U:C6	2.42	0.54
33:BA:1316:G:N2	33:BA:1318:A:H3'	2.23	0.54
33:HA:211:G:N3	33:HA:211:G:H3'	2.23	0.54
33:BA:1237:C:O2	33:BA:1334:G:O2'	2.24	0.54
1:CA:597:G:O2'	12:CL:11:GLY:O	2.25	0.54
20:ET:32:LEU:H	20:ET:83:ALA:HB3	1.73	0.54
21:GU:98:ASN:O	21:GU:100:GLU:N	2.39	0.54
32:E5:27:VAL:HG13	32:E5:83:ALA:HB3	1.90	0.53
1:AA:271:G:H4'	1:AA:272:A:OP1	2.08	0.53
1:GA:1603:A:OP1	59:GA:3408:HOH:O	2.18	0.53
33:HA:859:G:OP2	33:HA:869:G:N1	2.38	0.53
43:BK:82:LEU:HD22	43:BK:105:PHE:CD1	2.43	0.53
33:HA:1011:C:H2'	33:HA:1012:A:H5'	1.90	0.53
20:CT:39:THR:HB	20:CT:42:GLU:HB2	1.88	0.53
1:EA:558:U:H5''	10:EJ:111:LYS:HE3	1.90	0.53
34:DB:209:VAL:HG23	34:DB:210:THR:H	1.73	0.53
5:GE:46:GLN:HG3	5:GE:87:ALA:HB3	1.89	0.53
33:BA:1331:G:O2'	33:BA:1332:A:P	2.65	0.53
33:DA:509:A:C6	33:DA:510:A:N1	2.76	0.53
41:HI:44:ALA:HA	41:HI:47:VAL:HG13	1.90	0.53
15:AO:108:ASP:HA	15:AO:111:ARG:HG3	1.91	0.53
1:GA:2886:A:C2	1:GA:2887:A:H1'	2.43	0.53
33:BA:51:A:H4'	33:BA:52:C:O5'	2.08	0.53
33:FA:501:C:H2'	33:FA:502:A:H8	1.73	0.53
1:AA:2061:G:OP2	59:AA:3490:HOH:O	2.18	0.53
1:CA:2311:A:N3	6:CF:84:ILE:HD11	2.23	0.53
34:HB:67:LEU:HD21	34:HB:91:VAL:HG23	1.88	0.53
1:AA:322:A:H5'	1:AA:340:A:H1'	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DS:47:LEU:HD23	51:DS:48:THR:H	1.72	0.53
43:BK:22:HIS:O	43:BK:32:VAL:HA	2.07	0.53
12:EL:95:LEU:HD22	12:EL:100:ILE:HD11	1.89	0.53
12:GL:90:VAL:HG13	12:GL:95:LEU:HD21	1.91	0.53
32:E5:93:ALA:N	32:E5:130:PRO:HG2	2.23	0.53
1:AA:1141:U:H4'	1:AA:1142:A:O4'	2.08	0.53
1:GA:566:U:OP1	59:GA:3331:HOH:O	2.18	0.53
33:BA:1493:A:H3'	55:BW:3:SER:HB2	1.90	0.53
1:CA:2353:G:H1'	23:CW:30:VAL:HG12	1.89	0.53
10:GJ:64:VAL:HG22	10:GJ:68:LYS:HB2	1.89	0.53
32:A5:95:LEU:H	32:A5:95:LEU:HD22	1.74	0.53
6:AF:137:PHE:CD1	6:AF:138:PRO:HD2	2.43	0.53
1:EA:1288:G:C4	1:EA:1327:A:C2	2.97	0.53
34:FB:83:ALA:HA	34:FB:88:GLN:NE2	2.23	0.53
1:GA:1605:C:C2'	1:GA:1606:C:H5'	2.37	0.53
54:HV:585:ASP:O	54:HV:586:VAL:HB	2.09	0.53
1:AA:171:U:H2'	1:AA:172:A:H8	1.73	0.53
1:CA:546:U:O2'	1:CA:547:A:H4'	2.08	0.53
3:EC:2:VAL:HG11	3:EC:201:LEU:HD23	1.88	0.53
19:GS:2:GLU:HA	19:GS:108:SER:CB	2.38	0.53
1:GA:1906:G:H5'	1:GA:1906:G:H8	1.72	0.53
33:FA:881:G:OP2	44:FL:9:ARG:NH2	2.41	0.53
1:GA:1582:C:O2'	1:GA:1585:C:N3	2.32	0.53
1:AA:1857:G:C2	1:AA:1884:G:N3	2.76	0.53
34:HB:46:VAL:HB	34:HB:47:PRO:HD3	1.89	0.53
33:BA:668:G:H4'	47:BO:48:LYS:HB2	1.89	0.53
1:GA:2354:C:H4'	23:GW:31:LEU:HD22	1.89	0.53
32:A5:15:VAL:HG22	32:A5:66:GLY:HA3	1.89	0.53
1:GA:966:G:O6	59:GA:3333:HOH:O	2.17	0.53
34:BB:107:ARG:HG2	34:BB:111:LYS:HE3	1.90	0.53
1:CA:716:A:P	47:DO:89:ARG:HH12	2.31	0.53
16:CP:108:ARG:NH1	33:DA:1464:U:OP2	2.38	0.53
43:BK:63:ALA:HB2	43:BK:92:GLY:HA3	1.90	0.53
8:EH:8:LYS:O	8:EH:13:GLY:HA3	2.09	0.53
7:EG:10:VAL:O	7:EG:10:VAL:HG23	2.08	0.53
39:DG:145:ALA:C	39:DG:147:ALA:H	2.10	0.53
16:AP:33:GLU:OE2	33:BA:345:C:H4'	2.08	0.53
1:GA:2269:G:O2'	23:GW:18:LYS:HG2	2.08	0.53
29:E2:44:VAL:HG12	29:E2:44:VAL:O	2.09	0.53
16:GP:58:PHE:CD1	16:GP:75:THR:HG22	2.43	0.53
6:GF:3:LEU:HD13	6:GF:6:TYR:CD2	2.44	0.53
33:FA:756:C:HO2'	40:FH:2:SER:N	2.07	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:1:MET:HG2	20:CT:2:ILE:N	2.23	0.53
44:BL:44:LYS:CB	44:BL:45:PRO:CD	2.86	0.53
34:HB:20:ARG:HH11	34:HB:20:ARG:HA	1.72	0.53
6:AF:33:ILE:O	6:AF:90:LEU:N	2.41	0.53
34:FB:82:ALA:O	34:FB:88:GLN:NE2	2.41	0.53
1:GA:1627:G:C2	1:GA:1628:G:C8	2.96	0.53
52:FT:28:MET:HE1	52:FT:32:ILE:HD11	1.89	0.53
33:BA:981:U:H5	33:BA:982:U:HO2'	1.55	0.53
1:GA:2101:A:N6	1:GA:2187:U:O4	2.40	0.53
14:EN:12:ARG:NE	14:EN:20:MET:HE3	2.23	0.53
1:EA:861:A:C2	1:EA:917:A:C4	2.97	0.53
33:BA:1452:C:H4'	33:BA:1453:G:O5'	2.09	0.53
1:GA:2849:U:OP2	16:GP:92:ARG:NH1	2.41	0.53
1:GA:1105:U:H2'	1:GA:1106:G:C8	2.44	0.53
12:AL:87:GLY:O	12:AL:89:VAL:N	2.42	0.53
15:EO:34:HIS:O	15:EO:102:ARG:NH1	2.41	0.53
42:FJ:19:ASP:HA	42:FJ:22:THR:HG22	1.90	0.53
1:EA:2720:U:OP1	16:EP:52:ARG:NH2	2.38	0.53
45:FM:54:ASP:HA	45:FM:57:ARG:HB3	1.89	0.53
34:BB:46:VAL:HB	34:BB:47:PRO:HD3	1.90	0.53
33:HA:129:A:H1'	33:HA:130:A:C8	2.43	0.53
36:HD:3:ARG:CZ	36:HD:115:ARG:NE	2.71	0.53
29:A2:1:MET:SD	29:A2:2:LYS:N	2.82	0.53
11:CK:66:LYS:HA	11:CK:79:PHE:O	2.09	0.53
23:EW:41:GLY:C	23:EW:43:LYS:H	2.09	0.53
1:AA:945:A:C4	1:AA:2448:A:C2	2.96	0.53
12:GL:85:VAL:CG2	12:GL:94:THR:HG22	2.39	0.53
1:AA:1069:A:C4	1:AA:1073:A:N7	2.76	0.53
3:EC:255:LYS:O	3:EC:257:ARG:N	2.41	0.53
34:DB:53:LEU:HD22	34:DB:56:LEU:HD23	1.91	0.53
1:EA:85:G:OP1	21:EU:6:ARG:N	2.40	0.53
33:FA:1228:C:OP1	45:FM:107:ARG:NH2	2.42	0.53
33:HA:1496:C:C5	33:HA:1497:G:C5	2.96	0.53
1:GA:2393:U:H5'	12:GL:60:ARG:O	2.09	0.53
52:BT:83:ILE:O	52:BT:87:ALA:HB3	2.08	0.53
1:EA:1088:A:O2'	1:EA:1089:A:P	2.67	0.53
3:GC:16:VAL:N	3:GC:203:VAL:HG12	2.22	0.53
33:BA:880:C:OP1	44:BL:5:ASN:ND2	2.37	0.53
4:GD:106:LYS:HD3	4:GD:206:ALA:HB3	1.89	0.53
1:GA:967:U:H2'	1:GA:968:C:C6	2.43	0.53
48:BP:36:VAL:HG11	48:BP:57:ILE:HG12	1.89	0.53
1:AA:1447:C:H2'	1:AA:1448:G:C8	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:1:MET:O	13:CM:2:LEU:HB2	2.08	0.53
7:AG:104:LEU:HB2	7:AG:112:VAL:HG21	1.88	0.53
1:GA:1568:G:H4'	3:GC:58:LYS:HB3	1.91	0.53
37:BE:106:ILE:HD11	37:BE:124:LEU:CD2	2.38	0.53
49:BQ:59:VAL:HG11	49:BQ:75:LEU:HD23	1.91	0.53
33:BA:1297:G:OP1	33:BA:1302:C:N4	2.41	0.53
35:FC:118:ASP:O	35:FC:121:THR:HG22	2.08	0.53
42:BJ:88:MET:O	42:BJ:90:LEU:N	2.42	0.53
9:AI:131:THR:O	9:AI:134:SER:OG	2.27	0.53
1:CA:42:A:H2'	1:CA:43:G:H5'	1.91	0.53
3:GC:104:LEU:O	3:GC:105:ALA:HB3	2.09	0.53
28:A1:7:LYS:HA	28:A1:23:THR:HG22	1.91	0.53
39:BG:145:ALA:C	39:BG:147:ALA:H	2.12	0.53
33:DA:1099:G:H2'	33:DA:1100:C:C6	2.43	0.53
33:FA:1238:A:H5'	33:FA:1336:C:H41	1.73	0.53
43:DK:24:HIS:HB3	43:DK:31:ILE:HG13	1.89	0.53
1:CA:2698:U:H2'	1:CA:2699:C:C6	2.43	0.53
33:BA:299:G:O6	59:BA:1838:HOH:O	2.19	0.53
35:BC:60:PRO:HB3	35:BC:65:ARG:NH2	2.23	0.53
25:AY:28:LEU:HD21	25:AY:42:LEU:HD23	1.91	0.53
1:CA:570:G:O6	59:CA:3678:HOH:O	2.16	0.53
54:FV:281:ALA:HA	54:FV:284:ASP:HB2	1.90	0.53
36:HD:105:MET:SD	36:HD:143:VAL:CG1	2.96	0.53
8:CH:27:ARG:HH12	24:CX:63:ILE:HG12	1.72	0.53
1:AA:2314:A:OP1	6:AF:87:LYS:NZ	2.38	0.53
1:AA:1913:A:H4'	1:AA:1914:C:H5''	1.91	0.53
33:DA:389:A:C6	33:DA:390:U:H1'	2.44	0.53
43:HK:57:LYS:HD2	43:HK:57:LYS:H	1.74	0.53
33:BA:1527:U:OP2	53:BU:39:GLU:HG2	2.08	0.53
1:AA:451:U:C2	1:AA:453:A:N7	2.77	0.53
1:GA:2305:U:H1'	6:GF:132:ARG:HA	1.91	0.53
40:BH:44:GLY:O	40:BH:64:LYS:NZ	2.41	0.53
35:HC:36:ASP:OD1	35:HC:59:ARG:NH1	2.32	0.53
22:EV:75:GLN:HB2	22:EV:92:VAL:HG23	1.90	0.53
1:EA:2375:G:N2	1:EA:2378:A:OP2	2.41	0.53
1:EA:322:A:H5'	1:EA:340:A:H1'	1.91	0.53
3:CC:172:THR:HG22	3:CC:182:LYS:HG2	1.90	0.53
2:AB:116:G:H4'	15:AO:54:VAL:HG12	1.89	0.53
35:DC:156:ARG:H	35:DC:163:ALA:HA	1.74	0.53
38:HF:18:VAL:HG11	38:HF:58:HIS:CD2	2.43	0.53
21:AU:39:ASN:HD22	21:AU:64:ILE:CG2	2.22	0.53
1:CA:2039:U:H2'	1:CA:2040:G:C8	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:975:A:H8	33:HA:1357:A:HO2'	1.55	0.53
21:GU:73:ASN:HA	21:GU:95:PHE:HE2	1.73	0.53
1:EA:2267:A:H5''	1:EA:2268:A:H5'	1.90	0.53
23:EW:49:ASN:C	23:EW:49:ASN:OD1	2.46	0.53
10:CJ:43:GLU:O	10:CJ:45:THR:N	2.42	0.53
37:FE:114:VAL:CG1	37:FE:137:VAL:HG23	2.39	0.53
46:BN:49:GLN:HA	46:BN:51:LEU:CD2	2.38	0.53
42:FJ:37:ARG:CZ	42:FJ:77:VAL:HG21	2.37	0.53
51:DS:36:ARG:HH12	51:DS:77:THR:CG2	2.22	0.53
43:BK:107:ILE:CG2	53:BU:8:GLU:HB2	2.38	0.53
1:AA:1913:A:H4'	1:AA:1914:C:C5'	2.39	0.53
1:EA:2286:G:OP2	28:E1:5:ARG:NH2	2.42	0.53
11:CK:76:VAL:HB	16:CP:72:VAL:HG22	1.90	0.53
34:FB:70:GLY:HA2	34:FB:163:ILE:HG22	1.89	0.53
11:GK:24:VAL:HG12	11:GK:30:ARG:HD2	1.91	0.53
18:AR:39:LEU:HA	18:AR:49:ILE:HG21	1.89	0.53
1:GA:1198:U:O3'	17:GQ:4:LYS:HE3	2.08	0.53
1:EA:573:U:O2'	1:EA:574:A:H3'	2.07	0.53
33:BA:405:U:O4	36:BD:2:ALA:N	2.41	0.53
33:DA:404:G:C2	33:DA:405:U:C2	2.97	0.53
33:DA:129:A:H1'	33:DA:130:A:C8	2.44	0.53
34:DB:46:VAL:HA	34:DB:49:PHE:CE2	2.43	0.53
40:BH:18:GLN:NE2	40:BH:70:ALA:HB1	2.24	0.53
36:BD:170:TRP:CD2	36:BD:186:PRO:HB3	2.44	0.53
2:AB:60:C:C2	2:AB:61:G:C8	2.97	0.53
33:DA:484:G:H4'	33:DA:485:U:O5'	2.09	0.53
37:BE:95:PHE:C	37:BE:95:PHE:CD1	2.82	0.53
15:AO:36:TYR:CD1	15:AO:36:TYR:N	2.75	0.53
2:EB:37:C:C5	2:EB:38:C:C4	2.96	0.53
49:BQ:19:LYS:O	49:BQ:47:HIS:ND1	2.42	0.53
1:EA:2038:G:H2'	1:EA:2039:U:O4'	2.08	0.53
3:AC:144:GLU:HA	3:AC:151:GLY:HA2	1.89	0.53
23:EW:49:ASN:OD1	23:EW:50:VAL:N	2.42	0.53
43:BK:23:ILE:HD11	43:BK:86:VAL:HG22	1.90	0.53
6:AF:34:THR:HG22	6:AF:89:THR:HG23	1.90	0.53
33:DA:1468:A:C2'	33:DA:1469:C:H5'	2.38	0.53
20:AT:49:LYS:HB2	20:AT:50:LEU:HD12	1.91	0.53
42:HJ:6:ILE:O	42:HJ:76:ILE:HB	2.09	0.53
7:EG:84:LYS:HG3	7:EG:132:LEU:H	1.72	0.53
6:AF:33:ILE:HB	6:AF:90:LEU:HB2	1.91	0.53
31:G4:22:VAL:HG21	31:G4:36:ARG:HG2	1.89	0.53
20:ET:44:LYS:HG3	20:ET:55:VAL:HG11	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:672:C:C2	1:AA:809:G:N2	2.77	0.53
33:FA:643:C:H5"	40:FH:32:LEU:HD22	1.90	0.53
1:CA:971:G:OP2	1:CA:974:G:N2	2.42	0.53
36:DD:48:LEU:HD21	36:DD:53:VAL:N	2.23	0.53
4:GD:151:THR:CG2	4:GD:152:PRO:HD3	2.39	0.53
1:EA:1300:G:H4'	1:EA:1301:A:H5'	1.90	0.53
1:EA:2152:G:H2'	1:EA:2153:C:H5'	1.91	0.53
48:DP:8:ARG:O	48:DP:29:ASN:ND2	2.42	0.53
31:E4:22:VAL:HG11	31:E4:24:ARG:NH1	2.24	0.53
33:DA:600:A:H2'	33:DA:601:G:H8	1.74	0.53
47:HO:87:LEU:C	47:HO:89:ARG:H	2.12	0.53
17:CQ:4:LYS:HG3	17:CQ:5:ARG:H	1.74	0.53
28:C1:39:ASP:OD1	28:C1:41:VAL:HG22	2.08	0.53
3:AC:16:VAL:N	3:AC:203:VAL:HG12	2.24	0.53
54:HV:535:GLU:O	54:HV:576:ILE:N	2.37	0.53
1:GA:1508:A:OP1	1:GA:1508:A:H4'	2.08	0.53
1:GA:243:U:OP1	30:G3:5:THR:OG1	2.20	0.53
1:EA:1478:G:H1	1:EA:1513:U:H3	1.56	0.53
43:HK:98:ARG:NH2	53:HU:15:ALA:HB3	2.24	0.53
54:HV:124:GLU:OE2	54:HV:677:ARG:NH1	2.42	0.53
1:CA:995:C:H6	1:CA:995:C:H5'	1.74	0.53
1:CA:975:A:H1'	1:CA:990:A:C2	2.44	0.53
1:AA:1508:A:H2'	1:AA:1509:A:C8	2.44	0.53
46:HN:10:GLU:OE2	46:HN:61:ARG:N	2.42	0.53
1:EA:2155:U:H2'	1:EA:2156:G:C5'	2.39	0.53
44:BL:27:CYS:HB2	44:BL:28:PRO:CD	2.39	0.53
4:ED:133:THR:HG23	4:ED:134:HIS:N	2.24	0.53
9:EI:60:VAL:HG22	9:EI:66:PHE:CG	2.44	0.53
1:CA:1936:A:N6	1:CA:1963:U:N3	2.57	0.53
48:FP:55:ASP:OD1	48:FP:56:ARG:N	2.41	0.53
11:AK:16:ALA:HB2	11:AK:86:LEU:HD11	1.91	0.53
22:CV:62:THR:HA	22:CV:71:LYS:HA	1.91	0.53
3:EC:254:LYS:O	3:EC:256:THR:N	2.41	0.53
26:CZ:22:THR:O	26:CZ:25:GLY:N	2.42	0.53
34:HB:163:ILE:HG23	34:HB:164:ASP:H	1.73	0.53
1:EA:747:U:C5	1:EA:2613:U:C5	2.96	0.53
7:EG:73:SER:HA	7:EG:76:ILE:HG23	1.89	0.53
39:BG:65:ALA:HA	39:BG:128:ALA:HA	1.91	0.53
11:CK:24:VAL:HG13	11:CK:33:ALA:HB2	1.90	0.53
6:GF:139:GLU:N	6:GF:139:GLU:OE1	2.42	0.53
12:GL:58:TYR:O	30:G3:12:ARG:NE	2.42	0.53
1:CA:45:G:H5"	1:CA:46:G:H5'	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:846:U:HO2'	1:CA:847:U:P	2.32	0.53
1:GA:885:C:OP1	51:HS:56:GLN:NE2	2.41	0.53
36:DD:12:SER:HA	36:DD:19:LEU:HD13	1.90	0.53
1:GA:1478:G:H1	1:GA:1513:U:H3	1.57	0.53
1:GA:1073:A:N7	1:GA:1074:G:N2	2.55	0.53
10:AJ:4:PHE:HB3	10:AJ:44:TYR:CZ	2.44	0.53
16:AP:50:ARG:CD	16:AP:51:ASN:H	2.22	0.53
32:A5:74:ASP:OD1	32:A5:77:VAL:HG21	2.08	0.53
10:GJ:81:ILE:HG13	10:GJ:82:GLY:H	1.72	0.53
1:AA:1022:G:O2'	59:AA:3702:HOH:O	2.07	0.53
33:BA:1317:C:C1'	46:BN:49:GLN:HG2	2.39	0.53
33:DA:964:A:OP1	59:DA:1824:HOH:O	2.19	0.53
43:BK:33:THR:HA	43:BK:44:TRP:CB	2.39	0.53
1:GA:1288:G:C4	1:GA:1327:A:C2	2.97	0.53
52:BT:5:LYS:HE3	52:BT:7:ALA:H	1.74	0.53
34:HB:19:THR:O	34:HB:20:ARG:NH1	2.41	0.53
9:AI:19:PRO:HG2	9:AI:23:VAL:HG23	1.91	0.53
54:FV:221:ASN:HA	54:FV:224:GLU:HB3	1.89	0.53
9:CI:46:ASP:HA	9:CI:50:LYS:HD2	1.90	0.53
4:CD:29:VAL:HB	4:CD:98:VAL:HG22	1.90	0.53
40:BH:29:SER:OG	40:BH:30:SER:N	2.42	0.53
1:EA:1993:U:H4'	4:ED:133:THR:CG2	2.39	0.53
1:CA:42:A:H2'	1:CA:43:G:C5'	2.39	0.53
1:EA:747:U:C4	1:EA:2613:U:C4	2.97	0.53
36:HD:73:ARG:O	36:HD:76:TYR:N	2.41	0.53
14:EN:33:ILE:HD11	14:EN:118:ARG:CD	2.38	0.53
41:HI:21:ILE:CD1	41:HI:86:ALA:HB3	2.39	0.53
42:BJ:54:SER:O	46:BN:81:ARG:NH1	2.38	0.53
4:AD:39:ASP:OD1	4:AD:40:LEU:N	2.42	0.53
18:AR:61:ALA:HB2	18:AR:98:ILE:HA	1.91	0.53
1:AA:1132:U:H5'	10:AJ:84:ILE:HD13	1.91	0.53
1:AA:686:U:H2'	1:AA:788:A:N1	2.24	0.53
34:HB:71:THR:O	34:HB:72:LYS:HG2	2.09	0.53
13:CM:24:THR:OG1	13:CM:24:THR:O	2.27	0.53
49:FQ:50:ASN:ND2	49:FQ:50:ASN:O	2.42	0.53
33:BA:791:G:C6	33:BA:792:A:N7	2.77	0.53
1:GA:2591:C:OP1	3:GC:237:ARG:HG3	2.09	0.53
17:EQ:94:LEU:C	17:EQ:96:ASP:H	2.12	0.53
43:BK:31:ILE:HA	43:BK:46:THR:HB	1.91	0.53
33:DA:1033:G:C2'	33:DA:1034:G:H5'	2.39	0.53
23:AW:19:ARG:HD3	23:AW:22:VAL:HB	1.91	0.53
1:EA:1076:C:H1'	9:EI:92:PRO:HB3	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:116:LYS:O	4:AD:118:PHE:CE2	2.62	0.53
1:GA:1300:G:H4'	1:GA:1301:A:H5'	1.90	0.53
33:HA:1279:G:H2'	33:HA:1279:G:N3	2.23	0.53
1:EA:1084:A:OP2	32:E5:55:VAL:HA	2.09	0.53
18:GR:49:ILE:HB	18:GR:51:VAL:O	2.09	0.53
14:AN:55:ALA:O	14:AN:57:THR:N	2.41	0.53
34:BB:89:PHE:HB3	34:BB:149:GLY:O	2.08	0.53
54:DV:4:THR:CG2	54:DV:378:ARG:CZ	2.87	0.53
9:EI:6:ALA:HB3	9:EI:60:VAL:HB	1.90	0.53
1:CA:1605:C:C2'	1:CA:1606:C:H5'	2.39	0.53
11:CK:71:ARG:HB2	11:CK:105:ARG:NH2	2.24	0.53
40:BH:18:GLN:NE2	40:BH:72:VAL:H	2.06	0.53
33:HA:995:C:N3	33:HA:1046:A:O2'	2.40	0.53
1:AA:1360:G:OP2	59:AA:3609:HOH:O	2.18	0.53
1:EA:674:G:H1'	5:EE:69:ARG:CD	2.38	0.53
8:GH:24:GLY:O	8:GH:28:ASN:HB2	2.09	0.53
20:CT:92:ASN:HB3	20:CT:93:LEU:HD13	1.90	0.53
19:AS:20:VAL:HG21	19:AS:44:ALA:HA	1.91	0.53
1:EA:224:U:O4	1:EA:419:U:O2'	2.27	0.53
53:BU:9:ASN:HB2	53:BU:11:PRO:HD2	1.90	0.53
21:EU:81:ARG:O	21:EU:96:LYS:HG2	2.09	0.53
33:DA:1530:G:H2'	33:DA:1531:A:C8	2.44	0.53
9:EI:19:PRO:HG2	9:EI:23:VAL:HG22	1.91	0.53
4:ED:99:GLU:HG3	4:ED:100:LEU:N	2.24	0.53
34:HB:209:VAL:HG23	34:HB:210:THR:H	1.74	0.53
32:E5:118:ILE:HB	32:E5:119:PRO:CD	2.39	0.53
1:CA:2423:U:H6	1:CA:2423:U:H5'	1.73	0.53
22:AV:42:LEU:HD23	22:AV:42:LEU:N	2.24	0.53
1:AA:583:G:N7	59:AA:3282:HOH:O	2.34	0.53
7:AG:38:ASP:N	7:AG:38:ASP:OD1	2.42	0.53
1:CA:1219:U:H2'	1:CA:1220:G:H8	1.73	0.53
1:GA:2502:G:C5'	1:GA:2503:A:H5''	2.39	0.52
32:A5:26:VAL:CG1	32:A5:77:VAL:HG11	2.38	0.52
1:AA:1107:G:H4'	32:A5:81:LEU:HA	1.90	0.52
44:FL:44:LYS:CB	44:FL:45:PRO:CD	2.87	0.52
23:AW:55:ASP:O	23:AW:57:THR:N	2.41	0.52
1:AA:783:A:C8	1:AA:784:G:H4'	2.44	0.52
33:DA:1411:C:H2'	33:DA:1412:C:C6	2.45	0.52
30:G3:49:VAL:CG2	30:G3:54:LEU:HD13	2.39	0.52
33:FA:1492:A:C2'	33:FA:1493:A:H5''	2.40	0.52
11:EK:72:PRO:O	11:EK:74:GLY:N	2.39	0.52
18:CR:66:HIS:CG	18:CR:94:THR:HG22	2.44	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1181:G:O2'	33:BA:1182:G:C5	2.63	0.52
1:CA:84:A:H4'	1:CA:85:G:O5'	2.09	0.52
33:BA:591:U:H2'	33:BA:592:G:H8	1.73	0.52
9:EI:23:VAL:CG2	9:EI:27:LEU:HD23	2.38	0.52
42:DJ:71:LEU:O	42:DJ:72:ARG:NH1	2.42	0.52
43:DK:52:PHE:HE2	43:DK:65:VAL:HG11	1.74	0.52
16:EP:92:ARG:O	16:EP:93:LYS:HB2	2.10	0.52
42:DJ:5:ARG:HG3	42:DJ:6:ILE:HG13	1.90	0.52
1:EA:118:A:C8	1:EA:119:A:C8	2.97	0.52
1:CA:1342:A:O2'	1:CA:1344:U:OP2	2.21	0.52
34:DB:140:LEU:O	34:DB:144:GLU:N	2.41	0.52
39:FG:66:LEU:HD11	39:FG:101:MET:HG3	1.91	0.52
1:GA:491:G:O6	19:GS:49:LYS:NZ	2.38	0.52
38:DF:38:ARG:HG2	38:DF:39:LEU:N	2.23	0.52
23:GW:67:LYS:HG3	23:GW:69:GLU:HG3	1.91	0.52
35:HC:11:ARG:NH2	35:HC:182:ILE:HG13	2.23	0.52
21:GU:52:ASN:C	21:GU:54:PRO:HD2	2.28	0.52
1:EA:2305:U:H5''	6:EF:130:GLY:HA3	1.91	0.52
33:BA:881:G:P	44:BL:9:ARG:HH22	2.32	0.52
32:A5:131:THR:O	32:A5:134:GLU:N	2.43	0.52
1:GA:1062:G:H2'	1:GA:1063:G:C8	2.45	0.52
36:FD:34:ILE:O	36:FD:35:GLU:HB3	2.08	0.52
32:E5:23:LEU:HD11	32:E5:96:PHE:CZ	2.44	0.52
7:AG:120:ILE:HD11	7:AG:139:VAL:HG12	1.91	0.52
1:EA:1913:A:H4'	1:EA:1914:C:C5'	2.39	0.52
43:BK:35:THR:OG1	43:BK:36:ASP:N	2.42	0.52
7:EG:85:LYS:HG2	7:EG:131:VAL:HG12	1.91	0.52
1:GA:460:A:OP1	29:G2:41:ARG:NH1	2.40	0.52
34:FB:46:VAL:HB	34:FB:47:PRO:HD3	1.91	0.52
5:GE:161:ALA:HA	5:GE:164:LEU:HB2	1.91	0.52
16:GP:108:ARG:HH12	33:HA:1464:U:P	2.32	0.52
49:DQ:14:SER:HB3	49:DQ:22:VAL:HG22	1.90	0.52
7:CG:104:LEU:HB2	7:CG:112:VAL:HG21	1.92	0.52
5:AE:40:ARG:HG3	5:AE:40:ARG:HH11	1.75	0.52
1:CA:545:U:C2	1:CA:547:A:H5'	2.44	0.52
15:AO:7:ARG:HA	15:AO:10:ARG:NH2	2.24	0.52
33:FA:684:U:O2'	43:FK:40:ASN:O	2.18	0.52
33:BA:1432:G:O2'	59:BA:1835:HOH:O	2.10	0.52
1:EA:381:G:OP1	24:EX:17:ARG:NH2	2.43	0.52
1:GA:2582:G:C2	1:GA:2583:G:C8	2.97	0.52
34:DB:81:ASP:O	34:DB:84:LEU:N	2.42	0.52
14:CN:48:VAL:O	14:CN:51:LEU:N	2.42	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.74	0.52
35:BC:11:ARG:NH2	35:BC:182:ILE:HG13	2.24	0.52
22:EV:6:ALA:HB1	22:EV:40:ILE:HG22	1.91	0.52
42:BJ:57:VAL:HG12	42:BJ:58:ASN:N	2.23	0.52
33:DA:59:A:C5	33:DA:354:G:C6	2.98	0.52
1:EA:974:G:H8	1:EA:990:A:H62	1.54	0.52
20:CT:67:VAL:HG12	20:CT:76:ARG:HG3	1.91	0.52
13:EM:74:THR:HG22	13:EM:89:VAL:HA	1.90	0.52
37:HE:24:THR:HA	37:HE:29:ARG:HA	1.90	0.52
13:GM:64:TRP:HZ3	13:GM:106:ASP:HB2	1.73	0.52
4:CD:48:ILE:HG23	4:CD:84:LEU:HD11	1.91	0.52
1:GA:2654:A:N1	1:GA:2665:A:H5''	2.24	0.52
2:GB:50:A:OP2	15:GO:67:ASN:HA	2.10	0.52
16:CP:50:ARG:HD3	16:CP:51:ASN:H	1.74	0.52
33:HA:981:U:O4	59:HA:1832:HOH:O	2.19	0.52
1:GA:1064:C:H4'	9:GI:89:SER:CB	2.38	0.52
1:GA:1057:A:N6	1:GA:1087:G:OP2	2.39	0.52
12:CL:109:LYS:HG2	12:CL:126:ARG:HB2	1.90	0.52
16:GP:50:ARG:CD	16:GP:57:ALA:H	2.22	0.52
1:AA:616:A:H4'	5:AE:101:TYR:CZ	2.45	0.52
6:GF:3:LEU:HA	6:GF:6:TYR:CB	2.40	0.52
11:EK:76:VAL:HB	16:EP:72:VAL:CG2	2.39	0.52
42:HJ:37:ARG:NH2	42:HJ:76:ILE:HG23	2.23	0.52
1:AA:2103:C:N4	1:AA:2186:G:H1	2.08	0.52
33:DA:619:U:H3	36:DD:131:ASN:HB3	1.73	0.52
1:GA:2304:G:H22	1:GA:2312:U:H3	1.57	0.52
7:CG:83:THR:HA	7:CG:84:LYS:NZ	2.23	0.52
54:HV:494:ILE:HA	54:HV:610:PRO:HA	1.90	0.52
1:AA:2757:A:N1	7:AG:66:THR:HG21	2.24	0.52
1:GA:598:U:H4'	12:GL:12:SER:HB2	1.90	0.52
52:FT:6:SER:C	52:FT:8:LYS:H	2.13	0.52
51:BS:31:LEU:O	51:BS:50:ALA:N	2.40	0.52
33:HA:373:A:H1'	33:HA:481:G:H1'	1.91	0.52
36:BD:192:SER:OG	36:BD:193:ALA:N	2.43	0.52
1:EA:271:G:H4'	1:EA:272:A:OP1	2.10	0.52
33:BA:81:A:H2'	33:BA:82:G:H5''	1.91	0.52
33:BA:1401:G:C2	33:BA:1402:C:H1'	2.44	0.52
16:CP:52:ARG:HH11	16:CP:52:ARG:CG	2.22	0.52
33:FA:181:A:N6	33:FA:195:A:C8	2.77	0.52
1:CA:2105:U:N3	1:CA:2107:G:H5''	2.24	0.52
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.44	0.52
16:CP:50:ARG:CD	16:CP:51:ASN:H	2.23	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:163:C:O2'	1:EA:164:C:P	2.67	0.52
12:CL:85:VAL:HG22	12:CL:94:THR:HG22	1.90	0.52
3:AC:91:ALA:HB3	3:AC:103:ILE:HG22	1.91	0.52
9:CI:88:GLY:O	9:CI:89:SER:OG	2.26	0.52
23:AW:40:ARG:HG3	23:AW:56:HIS:CG	2.45	0.52
36:HD:29:ASP:O	36:HD:31:LYS:NZ	2.26	0.52
16:AP:52:ARG:CG	16:AP:52:ARG:HH11	2.20	0.52
33:HA:1505:G:H4'	33:HA:1506:U:H5''	1.91	0.52
1:GA:142:A:H2'	1:GA:143:C:C6	2.45	0.52
25:CY:56:LEU:O	25:CY:57:LEU:HB3	2.08	0.52
18:AR:66:HIS:CD2	18:AR:94:THR:HG22	2.44	0.52
36:FD:27:ALA:C	36:FD:29:ASP:N	2.59	0.52
15:AO:107:ALA:O	15:AO:111:ARG:HG2	2.08	0.52
9:EI:27:LEU:HD13	9:EI:34:ILE:HD12	1.91	0.52
14:AN:78:LYS:HG2	14:AN:83:LEU:HD23	1.92	0.52
47:FO:15:PHE:CE2	47:FO:85:LEU:HD11	2.44	0.52
22:CV:2:PHE:HB2	22:CV:61:LEU:HG	1.90	0.52
1:CA:1288:G:C4	1:CA:1327:A:C2	2.98	0.52
6:CF:10:GLU:O	6:CF:12:VAL:N	2.41	0.52
33:DA:618:C:H1'	48:DP:14:ARG:CZ	2.39	0.52
33:DA:407:U:C2	33:DA:408:A:C8	2.97	0.52
1:CA:1602:U:OP2	20:CT:64:LYS:NZ	2.41	0.52
1:EA:577:G:O2'	1:EA:1254:A:OP1	2.28	0.52
33:BA:560:A:C5	37:BE:128:TYR:CE2	2.96	0.52
12:EL:74:THR:HG22	12:EL:107:PHE:HB2	1.92	0.52
4:ED:4:LEU:HD23	4:ED:101:PHE:CE2	2.43	0.52
43:DK:23:ILE:HG21	43:DK:96:THR:HG21	1.91	0.52
16:GP:96:LEU:HB3	16:GP:99:LEU:HD23	1.92	0.52
41:DI:34:SER:HB3	41:DI:37:GLN:CG	2.39	0.52
33:DA:374:A:C5	33:DA:375:U:C5	2.98	0.52
36:BD:30:THR:HG22	36:BD:31:LYS:H	1.75	0.52
2:GB:95:U:H2'	2:GB:96:G:H8	1.75	0.52
20:ET:39:THR:O	20:ET:41:ALA:N	2.43	0.52
17:GQ:91:ARG:NH2	17:GQ:93:ILE:HD13	2.25	0.52
1:CA:996:A:H4'	17:CQ:91:ARG:HG2	1.92	0.52
1:EA:784:G:OP1	59:EA:3797:HOH:O	2.17	0.52
10:AJ:44:TYR:CE2	17:AQ:99:VAL:HG21	2.45	0.52
1:AA:2333:A:OP1	23:AW:76:ARG:NH1	2.38	0.52
23:AW:18:LYS:HG3	23:AW:19:ARG:N	2.25	0.52
23:AW:39:GLN:HG2	23:AW:41:GLY:H	1.74	0.52
23:AW:71:LYS:HB2	23:AW:78:PHE:CE2	2.44	0.52
54:BV:4:THR:HG21	54:BV:378:ARG:HG3	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:70:U:HO2'	33:HA:71:A:H8	1.58	0.52
43:BK:107:ILE:HG21	53:BU:8:GLU:HB2	1.90	0.52
33:HA:202:G:O2'	33:HA:468:A:H2'	2.10	0.52
5:AE:150:THR:HG21	5:AE:153:LEU:CA	2.40	0.52
42:DJ:74:VAL:HG12	42:DJ:75:ASP:N	2.24	0.52
33:DA:206:C:H2'	33:DA:207:C:O4'	2.09	0.52
18:AR:49:ILE:HG22	18:AR:53:PHE:C	2.30	0.52
1:AA:2478:A:P	31:A4:2:LYS:HZ1	2.32	0.52
26:GZ:8:GLN:O	26:GZ:9:THR:HG22	2.08	0.52
45:HM:74:SER:HA	45:HM:77:ILE:HB	1.92	0.52
4:CD:62:LYS:HB2	4:CD:63:PRO:HD3	1.90	0.52
58:DV:801:GCP:O3G	59:DV:901:HOH:O	2.19	0.52
1:EA:2232:C:P	24:EX:26:ARG:HH22	2.33	0.52
3:AC:12:ARG:HG2	3:AC:12:ARG:HH11	1.74	0.52
33:HA:21:G:H2'	33:HA:22:G:C8	2.44	0.52
44:DL:99:ARG:HA	44:DL:104:CYS:SG	2.49	0.52
1:GA:1474:U:H2'	1:GA:1475:G:H5'	1.91	0.52
22:GV:75:GLN:HB2	22:GV:92:VAL:CG2	2.39	0.52
41:FI:129:LYS:HG3	41:FI:130:ARG:N	2.25	0.52
36:DD:91:LEU:N	36:DD:91:LEU:HD12	2.25	0.52
1:AA:470:A:C2	1:AA:471:A:C4	2.97	0.52
2:GB:39:A:O2'	2:GB:46:A:N1	2.39	0.52
49:HQ:48:ASP:HB2	49:HQ:75:LEU:HD23	1.92	0.52
1:CA:2853:C:C2	1:CA:2854:G:C8	2.97	0.52
36:FD:105:MET:SD	36:FD:143:VAL:CG1	2.98	0.52
1:CA:374:A:N6	1:CA:400:G:O2'	2.42	0.52
18:GR:16:GLU:HA	18:GR:98:ILE:HG22	1.92	0.52
1:CA:384:A:H2'	1:CA:385:C:H5'	1.92	0.52
34:BB:88:GLN:OE1	34:BB:220:VAL:HG21	2.09	0.52
33:DA:677:U:H3	33:DA:713:G:H22	1.58	0.52
54:HV:4:THR:CG2	54:HV:378:ARG:HG3	2.39	0.52
10:GJ:4:PHE:HB3	10:GJ:44:TYR:CZ	2.44	0.52
23:EW:18:LYS:HG3	23:EW:19:ARG:N	2.24	0.52
33:DA:1147:C:H4'	41:DI:7:TYR:CE2	2.44	0.52
1:EA:653:U:H3'	1:EA:654:A:H5''	1.90	0.52
1:AA:1913:A:N7	33:BA:1494:G:H4'	2.25	0.52
3:EC:16:VAL:N	3:EC:203:VAL:CG1	2.72	0.52
45:HM:29:ARG:NH2	45:HM:60:VAL:HA	2.24	0.52
34:FB:70:GLY:HA2	34:FB:163:ILE:CG2	2.40	0.52
37:BE:16:ILE:HD13	37:BE:137:VAL:HG21	1.90	0.52
1:CA:1872:A:H2'	1:CA:1873:G:O4'	2.10	0.52
21:EU:94:PHE:HA	21:EU:101:THR:HA	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:994:C:H3'	17:GQ:53:LYS:HE2	1.91	0.52
18:GR:46:GLU:OE2	18:GR:46:GLU:N	2.39	0.52
43:FK:88:GLY:H	43:FK:114:THR:HG22	1.74	0.52
7:AG:84:LYS:HG3	7:AG:132:LEU:H	1.74	0.52
5:AE:164:LEU:HB3	5:AE:167:VAL:HG13	1.91	0.52
15:EO:34:HIS:CD2	15:EO:54:VAL:HG23	2.44	0.52
15:AO:36:TYR:HD1	15:AO:36:TYR:N	2.08	0.52
43:DK:82:LEU:HD22	43:DK:105:PHE:HB3	1.92	0.52
1:AA:368:A:N6	1:AA:369:U:O4	2.43	0.52
1:CA:1614:A:N1	19:CS:93:ALA:HB2	2.25	0.52
1:AA:479:A:N3	1:AA:481:G:H5''	2.24	0.52
33:FA:71:A:O2'	33:FA:72:A:O4'	2.27	0.52
9:AI:74:PRO:HG2	9:AI:77:VAL:HG21	1.91	0.52
33:DA:664:G:H22	33:DA:741:G:H1	1.58	0.52
1:CA:2867:G:O2'	1:CA:2868:A:OP2	2.27	0.52
1:AA:236:C:H2'	1:AA:237:C:H6	1.75	0.52
35:DC:36:ASP:OD1	35:DC:59:ARG:NH1	2.40	0.52
1:AA:684:G:C2	1:AA:794:A:C2	2.97	0.52
48:HP:10:GLY:HA3	48:HP:15:PRO:HA	1.91	0.52
1:GA:1341:G:C6	20:GT:84:TYR:CE1	2.98	0.52
34:BB:163:ILE:HG23	34:BB:164:ASP:H	1.73	0.52
20:AT:37:ASP:N	20:AT:37:ASP:OD1	2.40	0.52
33:DA:1148:U:O2'	41:DI:68:LYS:HE2	2.10	0.52
17:GQ:63:ARG:NH1	17:GQ:96:ASP:HA	2.25	0.52
3:CC:68:ARG:HD3	3:CC:103:ILE:HD11	1.90	0.52
17:CQ:65:ASN:HD22	17:CQ:75:TYR:HB2	1.75	0.52
1:GA:2427:C:H5''	1:GA:2428:G:OP1	2.10	0.52
1:GA:1001:A:C8	1:GA:1002:G:C8	2.98	0.52
23:GW:37:VAL:HG13	23:GW:55:ASP:C	2.30	0.52
18:CR:42:ALA:HA	18:CR:46:GLU:CB	2.39	0.52
1:CA:983:A:C6	1:CA:984:A:C2	2.97	0.52
33:BA:1150:A:N6	33:BA:1151:A:N6	2.58	0.52
1:GA:1654:A:OP2	14:GN:1:MET:HA	2.10	0.52
1:AA:1088:A:O2'	1:AA:1089:A:P	2.67	0.52
1:AA:2346:A:H3'	1:AA:2347:C:C5'	2.39	0.52
8:CH:12:LEU:HB2	8:CH:19:VAL:HG11	1.91	0.52
33:HA:1323:G:H2'	33:HA:1324:A:C8	2.44	0.52
33:HA:553:A:O2'	44:HL:26:ALA:O	2.28	0.52
1:CA:2134:A:H3'	1:CA:2135:A:H5''	1.92	0.52
13:CM:13:HIS:O	13:CM:14:LYS:HB2	2.09	0.52
33:BA:299:G:C6	33:BA:300:A:C6	2.98	0.52
54:HV:492:GLU:OE1	54:HV:567:ALA:N	2.38	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DH:96:MET:O	40:DH:99:LEU:HG	2.10	0.52
32:A5:118:ILE:HB	32:A5:119:PRO:CD	2.40	0.52
40:FH:125:ILE:HD11	40:FH:128:TYR:CE1	2.44	0.52
42:HJ:28:THR:O	42:HJ:32:THR:HG22	2.10	0.52
33:DA:322:C:OP2	33:DA:328:C:N4	2.42	0.52
33:BA:728:A:C6	33:BA:729:A:C6	2.98	0.52
1:AA:1386:C:H2'	1:AA:1387:A:C8	2.43	0.52
16:CP:4:ILE:HG22	16:CP:5:LYS:H	1.75	0.52
2:AB:4:C:H2'	2:AB:5:U:C6	2.44	0.52
45:BM:15:ALA:N	45:BM:41:GLU:O	2.42	0.52
33:FA:409:U:H2'	33:FA:410:G:O4'	2.09	0.52
1:EA:811:U:C2	1:EA:1251:C:C5	2.97	0.52
34:FB:153:MET:O	34:FB:155:GLY:N	2.39	0.52
17:AQ:29:ARG:HH11	17:AQ:29:ARG:HG2	1.75	0.52
1:EA:1001:A:OP2	59:EA:3732:HOH:O	2.18	0.52
1:AA:1306:C:H3'	59:AA:3409:HOH:O	2.09	0.52
1:GA:1188:U:H2'	1:GA:1189:A:H8	1.74	0.52
1:EA:2267:A:H5''	1:EA:2268:A:C5'	2.39	0.52
1:CA:1012:U:OP2	17:CQ:69:ARG:NH1	2.43	0.52
12:CL:85:VAL:CG2	12:CL:94:THR:HG22	2.39	0.52
14:EN:73:ASN:HA	14:EN:76:VAL:CG1	2.35	0.52
1:CA:1913:A:H62	33:DA:1494:G:C5'	2.21	0.52
12:EL:95:LEU:CD2	12:EL:100:ILE:HD11	2.40	0.52
23:AW:44:PHE:O	23:AW:78:PHE:HA	2.10	0.52
1:CA:2331:G:N3	1:CA:2336:A:C2	2.78	0.52
32:E5:91:ALA:CB	32:E5:130:PRO:HB3	2.40	0.52
4:GD:124:ARG:HD2	4:GD:125:TRP:CD1	2.45	0.52
4:GD:4:LEU:HD12	4:GD:32:ASN:ND2	2.25	0.52
45:BM:25:VAL:HG12	45:BM:29:ARG:HH12	1.73	0.52
18:ER:49:ILE:HB	18:ER:51:VAL:O	2.10	0.52
44:DL:44:LYS:HB3	44:DL:45:PRO:HD3	1.92	0.52
33:FA:1125:U:OP2	33:FA:1145:A:N6	2.42	0.52
17:CQ:97:ILE:CD1	17:CQ:104:ALA:HB3	2.40	0.52
33:DA:495:A:C2	33:DA:496:A:C6	2.97	0.52
1:CA:2529:G:H4'	7:CG:174:LYS:HD3	1.92	0.52
38:BF:7:VAL:O	38:BF:7:VAL:HG22	2.10	0.52
40:FH:106:THR:HG21	40:FH:121:LEU:HD22	1.92	0.52
1:AA:2305:U:H2'	1:AA:2306:C:O4'	2.09	0.52
20:ET:69:ARG:CD	20:ET:70:HIS:H	2.23	0.52
33:FA:1084:G:C5	33:FA:1085:U:C4	2.98	0.52
33:FA:1216:A:H2'	33:FA:1217:C:H6	1.75	0.52
54:FV:196:ALA:O	54:FV:198:GLN:N	2.42	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:49:ILE:CD1	51:BS:71:LEU:HD22	2.40	0.52
2:AB:55:U:O3'	6:AF:23:SER:OG	2.18	0.52
33:BA:1386:G:H2'	33:BA:1387:G:C8	2.45	0.52
42:FJ:91:ASP:OD1	42:FJ:92:LEU:N	2.43	0.52
33:FA:978:A:HO2'	33:FA:1322:C:H5	1.57	0.52
1:CA:55:G:H2'	1:CA:56:A:H8	1.75	0.52
1:EA:2291:U:H2'	1:EA:2292:U:C6	2.44	0.52
51:BS:37:ARG:O	51:BS:70:LYS:HD2	2.09	0.52
33:DA:1284:C:H3'	33:DA:1285:A:H8	1.75	0.52
38:HF:20:GLY:O	38:HF:23:GLU:HB3	2.09	0.52
1:CA:992:C:H4'	18:CR:74:ILE:HD13	1.90	0.52
1:AA:1053:C:C2	1:AA:1054:A:C8	2.98	0.52
1:EA:1452:G:H2'	1:EA:1457:U:O4	2.10	0.52
1:CA:1022:G:N7	10:CJ:68:LYS:HE2	2.25	0.52
33:DA:395:C:H2'	33:DA:396:C:C6	2.45	0.52
54:BV:64:THR:OG1	54:BV:323:LYS:NZ	2.40	0.52
1:EA:1141:U:H4'	1:EA:1142:A:O4'	2.10	0.52
1:EA:2025:C:OP2	59:EA:3475:HOH:O	2.19	0.52
35:FC:35:SER:OG	35:FC:59:ARG:NH2	2.42	0.52
34:FB:21:TYR:CD1	34:FB:21:TYR:N	2.78	0.52
1:GA:2091:C:O2	24:GX:33:HIS:NE2	2.42	0.52
1:AA:947:A:HO2'	1:AA:984:A:H2	1.57	0.52
51:FS:4:SER:O	51:FS:6:LYS:N	2.41	0.52
40:HH:106:THR:HG21	40:HH:121:LEU:HD22	1.92	0.52
11:AK:13:ASN:O	11:AK:15:GLY:N	2.41	0.52
7:AG:84:LYS:HG3	7:AG:131:VAL:CA	2.40	0.52
38:BF:7:VAL:HA	38:BF:60:VAL:O	2.10	0.52
26:GZ:24:LEU:O	26:GZ:27:GLY:N	2.38	0.52
22:AV:72:VAL:HG12	22:AV:93:ARG:HA	1.91	0.52
54:FV:159:LYS:HB2	54:FV:166:PRO:HG3	1.92	0.52
1:EA:78:U:H2'	1:EA:79:C:C6	2.45	0.52
1:AA:1543:G:HO2'	1:AA:1544:A:H8	1.56	0.52
18:ER:14:VAL:HG11	18:ER:98:ILE:HG13	1.92	0.52
16:AP:80:VAL:O	16:AP:82:SER:N	2.41	0.52
9:AI:58:ILE:HG22	9:AI:60:VAL:HG23	1.91	0.52
1:GA:1019:U:OP1	1:GA:1035:U:O2'	2.26	0.52
1:AA:2500:U:O2'	1:AA:2504:U:OP1	2.25	0.52
6:EF:132:ARG:O	6:EF:133:GLU:HB3	2.10	0.52
1:EA:1066:U:O2'	1:EA:1068:G:N7	2.35	0.52
33:BA:78:A:N7	33:BA:93:U:H4'	2.24	0.52
4:AD:92:VAL:O	4:AD:92:VAL:HG12	2.09	0.52
33:DA:51:A:H4'	33:DA:52:C:O5'	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:HN:48:LEU:O	46:HN:51:LEU:HG	2.10	0.52
54:FV:227:ALA:HB1	54:FV:234:MET:CB	2.40	0.52
52:DT:58:VAL:HG12	52:DT:72:ALA:HB1	1.92	0.52
17:GQ:57:ARG:HA	17:GQ:60:TRP:CE3	2.45	0.52
23:EW:16:GLU:O	23:EW:17:ALA:HB3	2.10	0.52
23:EW:19:ARG:HA	23:EW:34:SER:HA	1.92	0.52
13:EM:47:GLU:OE1	13:EM:51:ARG:NH1	2.42	0.52
23:AW:18:LYS:CA	23:AW:36:ILE:HB	2.40	0.52
1:AA:1069:A:N7	1:AA:1074:G:C5	2.78	0.52
33:FA:1492:A:H2'	33:FA:1493:A:C5'	2.40	0.52
54:DV:505:HIS:HB3	54:DV:516:GLY:N	2.24	0.52
11:EK:121:GLU:HG2	11:EK:122:VAL:H	1.75	0.52
42:HJ:35:GLN:HG3	42:HJ:37:ARG:NE	2.25	0.52
1:AA:28:A:H1'	1:AA:513:A:C2	2.45	0.52
17:CQ:29:ARG:CG	17:CQ:29:ARG:HH11	2.23	0.52
33:DA:475:C:H2'	33:DA:476:U:C6	2.45	0.52
14:AN:26:GLY:HA2	14:AN:75:ILE:HD13	1.90	0.52
33:BA:210:C:H4'	33:BA:211:G:C2	2.45	0.52
49:DQ:21:ILE:HG23	49:DQ:46:VAL:HB	1.91	0.52
7:CG:84:LYS:CG	7:CG:85:LYS:H	2.23	0.52
16:GP:19:PHE:O	16:GP:20:ARG:HB2	2.10	0.52
7:AG:17:LYS:HG3	1:EA:3:U:H4'	1.92	0.52
1:GA:443:A:N7	5:GE:40:ARG:HG2	2.25	0.52
1:CA:788:A:H3'	1:CA:790:U:H5	1.75	0.52
1:GA:2298:A:N1	1:GA:2321:U:C4	2.78	0.52
33:HA:250:A:H4'	33:HA:251:G:O5'	2.10	0.52
29:E2:34:ARG:NH1	29:E2:39:ARG:HD3	2.24	0.52
33:FA:51:A:H4'	33:FA:52:C:O5'	2.10	0.52
33:BA:815:A:N7	33:BA:1509:C:O2'	2.34	0.52
14:EN:58:ASP:OD2	14:EN:63:ARG:NH2	2.43	0.52
35:FC:60:PRO:HB3	42:FJ:94:ALA:HB2	1.92	0.52
40:FH:10:MET:HG3	40:FH:27:MET:SD	2.50	0.52
34:HB:126:ASP:HB3	34:HB:130:LYS:HE3	1.92	0.52
54:DV:151:PHE:CE1	54:DV:266:CYS:HB3	2.45	0.52
8:AH:12:LEU:HB2	8:AH:19:VAL:HG11	1.91	0.52
41:DI:24:GLY:HA3	41:DI:62:ASP:HB2	1.92	0.52
1:GA:2199:A:H3'	1:GA:2200:C:H6	1.74	0.52
29:E2:10:LEU:HD11	29:E2:14:ARG:HE	1.75	0.52
23:CW:19:ARG:HA	23:CW:34:SER:HA	1.91	0.51
23:CW:24:ARG:HG3	23:CW:65:LYS:HD3	1.92	0.51
16:CP:92:ARG:O	16:CP:93:LYS:HB2	2.10	0.51
33:BA:1492:A:H2'	33:BA:1493:A:H5'	1.90	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:HJ:37:ARG:HD2	42:HJ:75:ASP:O	2.10	0.51
52:BT:3:ASN:O	52:BT:5:LYS:N	2.40	0.51
33:FA:1228:C:OP1	45:FM:107:ARG:NH1	2.43	0.51
2:GB:117:G:C6	2:GB:118:C:C4	2.98	0.51
36:FD:197:GLU:O	36:FD:200:ILE:N	2.42	0.51
9:EI:58:ILE:HD13	9:EI:68:PHE:HB2	1.92	0.51
1:AA:1532:A:H3'	1:AA:1533:C:C6	2.45	0.51
5:AE:108:ILE:CD1	12:AL:2:ARG:NH1	2.73	0.51
33:BA:254:G:O3'	49:BQ:71:LYS:NZ	2.43	0.51
3:AC:16:VAL:H	3:AC:203:VAL:HG12	1.74	0.51
3:AC:12:ARG:CG	3:AC:12:ARG:HH11	2.22	0.51
1:AA:1800:C:OP2	3:AC:181:ARG:NH1	2.43	0.51
11:EK:1:MET:HG3	11:EK:67:LYS:HD3	1.91	0.51
30:G3:61:LEU:HB3	30:G3:64:ALA:HB2	1.92	0.51
14:CN:80:PHE:O	14:CN:85:PRO:HD3	2.10	0.51
11:EK:107:LEU:O	11:EK:109:SER:N	2.35	0.51
33:BA:1086:U:O2'	33:BA:1087:G:H5'	2.10	0.51
1:EA:2615:U:C2	27:E0:3:GLN:HA	2.44	0.51
1:CA:2473:U:C4	1:CA:2474:U:C4	2.98	0.51
33:DA:890:G:O2'	33:DA:906:A:N6	2.43	0.51
44:DL:87:VAL:HG11	44:DL:90:LEU:HD23	1.91	0.51
41:DI:23:PRO:HA	41:DI:61:LEU:HA	1.90	0.51
20:GT:54:GLU:HB2	20:GT:88:LYS:HG3	1.91	0.51
1:AA:111:A:C2	1:AA:112:U:C2	2.98	0.51
28:A1:8:ILE:HG12	28:A1:51:ALA:HA	1.92	0.51
11:AK:113:MET:SD	11:AK:116:ILE:HD11	2.49	0.51
30:A3:44:ARG:N	30:A3:45:PRO:HD2	2.24	0.51
4:GD:108:ASP:N	4:GD:204:LYS:O	2.43	0.51
11:CK:23:LYS:HE2	11:CK:23:LYS:HA	1.91	0.51
1:GA:1061:U:C2	9:GI:9:LYS:HG3	2.45	0.51
41:FI:57:MET:O	41:FI:60:LYS:N	2.38	0.51
17:CQ:63:ARG:HH22	17:CQ:96:ASP:N	2.09	0.51
33:HA:1306:A:H1'	33:HA:1332:A:N9	2.25	0.51
2:GB:78:A:C2	2:GB:99:A:C4	2.98	0.51
43:HK:68:GLU:O	43:HK:70:CYS:N	2.32	0.51
33:BA:681:A:N3	33:BA:710:G:N2	2.57	0.51
33:BA:780:A:H5''	43:BK:125:LYS:HD2	1.91	0.51
53:DU:41:PRO:O	53:DU:45:ARG:HD3	2.11	0.51
1:AA:774:G:N2	1:AA:787:C:O2'	2.40	0.51
1:EA:2134:A:O2'	1:EA:2156:G:N2	2.42	0.51
40:FH:2:SER:OG	40:FH:3:MET:N	2.42	0.51
16:EP:50:ARG:HG2	16:EP:57:ALA:H	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2820:A:OP2	14:CN:2:ARG:NH2	2.44	0.51
1:GA:1181:U:H2'	1:GA:1182:G:H8	1.74	0.51
34:HB:83:ALA:O	34:HB:88:GLN:HG3	2.10	0.51
7:GG:29:ASN:OD1	7:GG:30:GLY:N	2.44	0.51
44:HL:44:LYS:HB3	44:HL:45:PRO:HD3	1.92	0.51
1:AA:2376:A:N1	15:AO:92:PHE:HB3	2.25	0.51
54:DV:195:ASP:OD1	54:DV:196:ALA:N	2.44	0.51
34:DB:115:ASP:O	34:DB:119:GLN:NE2	2.43	0.51
7:AG:51:PHE:CZ	7:AG:68:ARG:HA	2.45	0.51
33:BA:993:G:H2'	33:BA:993:G:N3	2.25	0.51
33:DA:1228:C:OP1	45:DM:107:ARG:NH1	2.43	0.51
21:GU:85:ARG:HD3	21:GU:86:PHE:N	2.26	0.51
12:CL:127:VAL:HG23	12:CL:131:ALA:HB3	1.91	0.51
33:DA:416:G:O6	59:DA:1720:HOH:O	2.18	0.51
24:EX:36:ARG:HG2	24:EX:47:THR:CG2	2.40	0.51
20:GT:55:VAL:HG12	20:GT:56:GLU:N	2.25	0.51
33:BA:658:C:C2	33:BA:749:A:C2	2.98	0.51
23:AW:21:GLY:HA2	23:AW:25:PHE:CE2	2.45	0.51
33:BA:844:G:H2'	33:BA:845:A:H5''	1.91	0.51
33:BA:374:A:O4'	33:BA:481:G:N2	2.44	0.51
33:HA:98:A:H2'	33:HA:99:C:C6	2.45	0.51
7:EG:106:LEU:O	7:EG:151:ARG:NH1	2.40	0.51
1:CA:1206:G:C5	1:CA:1207:C:C5	2.99	0.51
1:EA:1474:U:H2'	1:EA:1475:G:H5'	1.92	0.51
1:EA:1141:U:H6	10:EJ:65:THR:CG2	2.24	0.51
53:BU:34:ARG:HH21	53:BU:35:ARG:HD2	1.74	0.51
1:GA:1924:C:C4	1:GA:1925:C:N4	2.79	0.51
33:HA:404:G:N7	36:HD:2:ALA:HB3	2.25	0.51
9:GI:19:PRO:HD2	9:GI:23:VAL:HG23	1.91	0.51
33:BA:60:A:O2'	52:BT:5:LYS:HE2	2.10	0.51
9:AI:14:ALA:HB2	9:AI:54:ILE:HD11	1.93	0.51
3:EC:109:LEU:HD23	3:EC:110:LYS:H	1.76	0.51
53:BU:37:PHE:CD2	53:BU:41:PRO:HB3	2.46	0.51
53:BU:37:PHE:HB3	53:BU:41:PRO:HD3	1.91	0.51
1:GA:45:G:C5'	1:GA:46:G:H5'	2.40	0.51
1:EA:1072:C:H5'	1:EA:1073:A:OP1	2.10	0.51
40:FH:106:THR:HG22	40:FH:107:SER:N	2.25	0.51
1:GA:1061:U:N3	9:GI:9:LYS:HG3	2.25	0.51
23:AW:72:GLY:O	23:AW:74:LYS:N	2.37	0.51
16:AP:5:LYS:H	16:AP:8:GLU:HG3	1.75	0.51
1:CA:1322:A:OP1	19:CS:11:ARG:NE	2.38	0.51
34:BB:49:PHE:HB3	34:BB:212:TYR:OH	2.09	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:66:ARG:NH1	13:CM:104:GLU:OE1	2.43	0.51
1:EA:1590:A:OP2	59:EA:3620:HOH:O	2.19	0.51
43:FK:52:PHE:CE2	43:FK:65:VAL:HG11	2.45	0.51
33:FA:1496:C:OP1	54:FV:509:SER:HB2	2.09	0.51
36:DD:125:VAL:O	36:DD:127:GLY:N	2.42	0.51
1:AA:323:C:H6	1:AA:1205:A:N1	2.07	0.51
42:FJ:88:MET:O	42:FJ:90:LEU:N	2.43	0.51
33:BA:587:G:C2	33:BA:755:G:C6	2.98	0.51
1:AA:871:U:H2'	1:AA:872:U:C6	2.45	0.51
1:AA:478:A:N1	1:AA:500:G:H4'	2.25	0.51
1:EA:545:U:H2'	1:EA:546:U:O3'	2.10	0.51
1:EA:568:U:O4	18:ER:81:LYS:NZ	2.43	0.51
16:GP:33:GLU:OE1	33:HA:346:G:O4'	2.29	0.51
1:GA:1258:U:H2'	1:GA:1259:G:C8	2.44	0.51
35:DC:42:TYR:CE2	35:DC:90:VAL:HG21	2.46	0.51
1:CA:2339:C:H2'	1:CA:2340:A:C8	2.45	0.51
10:GJ:6:ALA:HB3	10:GJ:45:THR:HG21	1.91	0.51
1:EA:996:A:H4'	17:EQ:91:ARG:NE	2.26	0.51
32:E5:54:VAL:HG22	32:E5:83:ALA:HB1	1.93	0.51
23:CW:18:LYS:HG3	23:CW:19:ARG:N	2.26	0.51
1:EA:855:G:C2	23:EW:23:LYS:HD2	2.45	0.51
1:CA:2502:G:C5'	1:CA:2503:A:H5''	2.40	0.51
33:BA:684:U:C4	33:BA:685:G:C5	2.98	0.51
54:DV:591:LEU:HD11	54:DV:595:LEU:HG	1.92	0.51
33:BA:1007:U:H2'	33:BA:1008:U:C5'	2.38	0.51
33:FA:1033:G:H2'	33:FA:1034:G:C5'	2.39	0.51
44:DL:63:VAL:HG22	44:DL:64:THR:N	2.26	0.51
16:GP:50:ARG:HD3	16:GP:51:ASN:H	1.75	0.51
6:GF:3:LEU:CD2	6:GF:100:GLU:HB2	2.40	0.51
11:EK:105:ARG:HD3	11:EK:122:VAL:HG12	1.92	0.51
43:BK:15:GLN:HG3	43:BK:16:VAL:N	2.26	0.51
33:FA:451:A:C2	33:FA:481:G:C6	2.98	0.51
11:CK:76:VAL:HB	16:CP:72:VAL:CG2	2.40	0.51
2:EB:41:G:H3'	2:EB:42:C:H5''	1.93	0.51
33:FA:846:G:OP1	50:FR:48:ARG:NH1	2.43	0.51
33:DA:382:A:H2'	33:DA:383:A:C8	2.46	0.51
34:DB:79:VAL:HG22	34:DB:213:LEU:HD21	1.91	0.51
36:FD:22:LYS:C	36:FD:24:GLY:H	2.13	0.51
46:FN:42:TRP:O	46:FN:45:VAL:HG22	2.10	0.51
33:HA:374:A:H5''	33:HA:452:A:C2	2.46	0.51
33:BA:410:G:OP1	36:BD:26:ARG:NH1	2.31	0.51
20:GT:44:LYS:HG3	20:GT:55:VAL:HG11	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:GN:45:ARG:HD3	14:GN:97:ILE:HD11	1.93	0.51
42:FJ:7:ARG:HB3	42:FJ:101:SER:HB2	1.93	0.51
10:EJ:73:VAL:HG23	10:EJ:74:TYR:H	1.76	0.51
54:HV:414:PRO:HA	54:HV:461:MET:SD	2.50	0.51
41:FI:38:TYR:HD1	41:FI:39:PHE:CD2	2.29	0.51
43:HK:24:HIS:HB3	43:HK:31:ILE:HG12	1.91	0.51
35:DC:111:LEU:HD13	35:DC:144:LEU:HD11	1.91	0.51
33:FA:791:G:C6	33:FA:792:A:N7	2.78	0.51
1:GA:2339:C:H2'	1:GA:2340:A:C8	2.45	0.51
13:EM:40:ARG:HD3	13:EM:93:VAL:HG11	1.93	0.51
2:CB:7:G:H4'	15:CO:29:HIS:CD2	2.45	0.51
13:EM:55:ARG:HD2	13:EM:55:ARG:O	2.10	0.51
17:EQ:91:ARG:NH1	18:ER:11:GLN:O	2.44	0.51
32:A5:77:VAL:C	32:A5:79:PRO:HD2	2.30	0.51
3:AC:68:ARG:NE	3:AC:103:ILE:HD11	2.24	0.51
1:CA:1913:A:C2	54:DV:591:LEU:HD12	2.45	0.51
1:AA:2336:A:N6	23:AW:40:ARG:CB	2.74	0.51
46:HN:41:ARG:HG2	46:HN:42:TRP:N	2.26	0.51
1:CA:963:U:OP2	59:CA:3352:HOH:O	2.19	0.51
1:AA:1654:A:O2'	4:AD:118:PHE:CG	2.63	0.51
6:CF:39:VAL:H	6:CF:85:GLY:HA2	1.75	0.51
1:GA:875:G:C2'	1:GA:876:C:H5'	2.40	0.51
1:AA:1725:U:H2'	1:AA:1726:C:C6	2.45	0.51
5:GE:178:VAL:O	5:GE:182:ALA:N	2.40	0.51
33:HA:1323:G:O6	51:HS:4:SER:OG	2.19	0.51
34:BB:67:LEU:HD21	34:BB:91:VAL:HG23	1.92	0.51
1:GA:1073:A:H3'	1:GA:1074:G:H5''	1.91	0.51
14:EN:33:ILE:HG12	14:EN:118:ARG:CZ	2.41	0.51
40:FH:106:THR:HG21	40:FH:121:LEU:HD13	1.91	0.51
42:FJ:71:LEU:O	42:FJ:72:ARG:NH1	2.42	0.51
5:CE:23:PHE:CE1	5:CE:28:VAL:HG11	2.45	0.51
24:AX:44:ARG:NH2	24:AX:77:TYR:HE1	2.09	0.51
8:AH:9:VAL:O	8:AH:13:GLY:N	2.42	0.51
37:HE:106:ILE:HD11	37:HE:124:LEU:CD2	2.40	0.51
2:AB:28:C:OP1	15:AO:31:THR:HG21	2.10	0.51
35:DC:115:LEU:O	35:DC:119:SER:N	2.40	0.51
1:EA:1868:C:N4	1:EA:1869:G:O6	2.44	0.51
37:BE:41:ASP:OD1	37:BE:42:GLY:N	2.43	0.51
6:EF:3:LEU:HD11	6:EF:172:PHE:HD2	1.75	0.51
9:AI:100:ILE:HG22	9:AI:101:SER:N	2.25	0.51
1:AA:397:U:H2'	1:AA:398:C:C6	2.45	0.51
1:GA:1202:G:C5	1:GA:1203:U:C4	2.98	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DR:34:THR:OG1	50:DR:35:GLU:N	2.43	0.51
12:EL:132:ARG:HG3	12:EL:142:ILE:HD12	1.93	0.51
1:GA:2619:C:H5'	4:GD:155:VAL:O	2.10	0.51
34:FB:98:GLY:C	34:FB:100:LEU:H	2.14	0.51
1:GA:996:A:H4'	17:GQ:91:ARG:CD	2.41	0.51
1:AA:2297:A:N1	1:AA:2321:U:H5	2.08	0.51
9:GI:55:PRO:HB2	9:GI:71:LYS:HD2	1.92	0.51
22:CV:42:LEU:HD23	22:CV:47:VAL:HG21	1.93	0.51
1:AA:1782:U:OP1	59:AA:3683:HOH:O	2.19	0.51
1:AA:1437:C:H2'	1:AA:1438:U:H6	1.73	0.51
11:EK:70:ARG:HD3	11:EK:76:VAL:HG22	1.91	0.51
1:EA:2145:C:H3'	1:EA:2146:C:C5'	2.41	0.51
23:CW:30:VAL:HG23	23:CW:60:ALA:O	2.10	0.51
18:AR:49:ILE:HG22	18:AR:54:VAL:N	2.25	0.51
51:FS:5:LEU:O	51:FS:6:LYS:HE3	2.11	0.51
1:AA:2848:G:O2'	1:AA:2867:G:N2	2.40	0.51
15:GO:34:HIS:CD2	15:GO:54:VAL:HG23	2.46	0.51
1:AA:2834:G:H2'	1:AA:2879:A:H61	1.76	0.51
33:BA:159:G:N2	33:BA:162:A:OP2	2.43	0.51
9:EI:79:LEU:HA	9:EI:83:ALA:CB	2.41	0.51
1:EA:1256:G:C2'	5:EE:77:ILE:HD11	2.41	0.51
1:AA:1993:U:H4'	4:AD:133:THR:HG21	1.92	0.51
43:HK:98:ARG:CZ	53:HU:15:ALA:HB3	2.41	0.51
1:CA:45:G:C5'	1:CA:46:G:H5'	2.40	0.51
1:CA:45:G:H5''	1:CA:46:G:OP1	2.11	0.51
18:AR:16:GLU:HA	18:AR:98:ILE:HG22	1.92	0.51
1:EA:201:C:OP1	24:EX:17:ARG:NH1	2.44	0.51
24:AX:76:LYS:HG3	24:AX:77:TYR:H	1.74	0.51
1:EA:2760:C:H2'	1:EA:2761:A:H5'	1.92	0.51
4:CD:4:LEU:HD23	4:CD:101:PHE:CE2	2.45	0.51
1:GA:646:U:H3'	1:GA:647:G:H5''	1.93	0.51
28:E1:4:ILE:HD13	28:E1:27:ARG:NH1	2.26	0.51
42:BJ:74:VAL:HG12	42:BJ:75:ASP:N	2.25	0.51
11:GK:15:GLY:O	11:GK:46:ALA:HA	2.11	0.51
1:CA:2246:G:H2'	1:CA:2247:A:C8	2.46	0.51
40:HH:10:MET:HE2	40:HH:33:LYS:HG2	1.92	0.51
1:GA:1024:G:C8	1:GA:1025:G:H2'	2.46	0.51
17:GQ:25:GLY:HA2	17:GQ:29:ARG:NH1	2.26	0.51
1:CA:2314:A:OP1	6:CF:87:LYS:NZ	2.44	0.51
24:GX:52:ALA:O	24:GX:53:LYS:HB3	2.10	0.51
33:BA:754:C:OP1	47:BO:72:ARG:NH2	2.44	0.51
1:EA:2343:U:O2'	1:EA:2373:G:O2'	2.29	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:53:MET:HE3	13:AM:63:ILE:HD13	1.91	0.51
36:HD:193:ALA:HB3	36:HD:195:ILE:HG23	1.93	0.51
3:EC:244:VAL:HG12	3:EC:250:GLN:HA	1.92	0.51
33:DA:562:U:H1'	44:DL:12:ARG:HB3	1.92	0.51
1:GA:2358:A:C4	1:GA:2359:C:C6	2.98	0.51
17:AQ:35:PHE:CZ	17:AQ:39:ILE:HD11	2.45	0.51
1:GA:2098:U:C4	1:GA:2099:U:C4	2.99	0.51
2:CB:79:G:O6	22:CV:14:LYS:NZ	2.31	0.51
17:AQ:91:ARG:HH11	18:AR:11:GLN:H	1.59	0.51
23:EW:34:SER:OG	23:EW:36:ILE:HG22	2.10	0.51
53:DU:41:PRO:O	53:DU:45:ARG:N	2.40	0.51
1:AA:2303:G:C6	1:AA:2304:G:N7	2.79	0.51
32:E5:91:ALA:HB3	32:E5:130:PRO:HB2	1.93	0.51
44:DL:38:TYR:OH	44:DL:54:ARG:HD2	2.10	0.51
17:GQ:65:ASN:HD22	17:GQ:75:TYR:CB	2.24	0.51
36:BD:65:TYR:O	36:BD:115:ARG:NH2	2.43	0.51
35:BC:123:GLN:HB3	35:BC:128:VAL:HG11	1.93	0.51
28:C1:33:LEU:H	28:C1:51:ALA:HB3	1.75	0.51
1:AA:1535:A:H4'	1:AA:1536:C:OP2	2.10	0.51
34:DB:49:PHE:HB2	34:DB:212:TYR:CE2	2.46	0.51
1:GA:2472:G:H2'	1:GA:2475:C:H42	1.75	0.51
33:FA:625:U:H4'	48:FP:16:PHE:CE2	2.46	0.51
43:BK:84:VAL:HG21	43:BK:100:LEU:HD21	1.92	0.51
33:DA:79:G:H3'	33:DA:80:A:C8	2.46	0.51
20:ET:27:SER:O	20:ET:28:ASN:ND2	2.44	0.51
3:GC:131:MET:O	3:GC:166:ARG:NH1	2.43	0.51
3:CC:79:ARG:NH2	3:CC:81:GLU:OE2	2.38	0.51
37:BE:94:VAL:HG21	37:BE:140:THR:HG22	1.93	0.51
39:BG:59:LEU:O	39:BG:62:PHE:HB3	2.10	0.51
25:CY:1:MET:H3	25:CY:2:LYS:HD2	1.76	0.51
33:HA:1386:G:H2'	33:HA:1387:G:H8	1.75	0.51
1:CA:372:G:O4'	24:CX:60:LYS:HE3	2.11	0.51
11:GK:99:ILE:HG21	11:GK:119:ALA:HB2	1.92	0.51
48:DP:4:ILE:HD13	48:DP:67:ILE:HD13	1.92	0.51
36:FD:201:VAL:HG12	37:FE:103:THR:HG23	1.92	0.51
33:FA:8:A:C5	36:FD:206:LYS:HB3	2.46	0.51
1:AA:776:G:N1	1:AA:2072:C:OP1	2.38	0.51
1:GA:479:A:N3	1:GA:481:G:H5''	2.26	0.51
37:FE:46:VAL:CG1	37:FE:118:ALA:HA	2.41	0.51
20:CT:48:GLN:O	20:CT:52:GLU:HA	2.10	0.51
32:A5:39:THR:HA	32:A5:42:ARG:HD2	1.93	0.51
1:AA:1808:A:O2'	24:AX:2:ARG:NH1	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2006:C:O5'	1:GA:2006:C:H6	1.94	0.51
10:EJ:44:TYR:C	10:EJ:44:TYR:CD1	2.83	0.51
32:E5:103:ASN:ND2	32:E5:109:LYS:O	2.44	0.51
1:CA:995:C:O2'	1:CA:996:A:OP2	2.23	0.51
1:AA:273:G:N2	1:AA:365:U:C2	2.78	0.51
1:AA:762:U:H4'	1:AA:763:G:O5'	2.11	0.51
1:EA:2243:U:H2'	1:EA:2244:U:C6	2.46	0.51
23:AW:41:GLY:HA2	23:AW:44:PHE:CE2	2.45	0.51
18:GR:66:HIS:CD2	18:GR:94:THR:HG22	2.45	0.51
1:EA:2685:G:OP1	11:EK:78:ARG:NH2	2.44	0.51
5:GE:44:ARG:HG3	5:GE:44:ARG:HH21	1.75	0.51
1:CA:947:A:HO2'	1:CA:984:A:H2	1.57	0.51
33:BA:1411:C:H2'	33:BA:1412:C:C6	2.45	0.51
1:GA:1289:C:O2'	1:GA:1330:C:H4'	2.10	0.51
6:GF:11:VAL:HA	6:GF:172:PHE:CE1	2.46	0.51
32:E5:131:THR:HB	32:E5:134:GLU:HG3	1.92	0.51
6:GF:141:ASP:HB3	6:GF:144:LYS:HB2	1.92	0.51
37:BE:46:VAL:CG1	37:BE:47:GLY:N	2.73	0.51
20:ET:40:LYS:O	20:ET:44:LYS:N	2.37	0.51
1:EA:1256:G:O2'	5:EE:77:ILE:HD11	2.11	0.51
21:GU:92:VAL:CG2	21:GU:101:THR:HG23	2.41	0.51
33:BA:1296:C:H4'	33:BA:1302:C:N3	2.26	0.51
36:BD:139:PRO:HB3	36:BD:184:ARG:HA	1.91	0.51
34:HB:70:GLY:HA2	34:HB:163:ILE:HG22	1.93	0.51
34:DB:141:GLU:HA	34:DB:144:GLU:HB2	1.93	0.51
1:CA:348:A:H2'	1:CA:349:U:O4'	2.11	0.51
24:AX:39:VAL:HG22	24:AX:44:ARG:O	2.10	0.51
9:GI:14:ALA:HB2	9:GI:54:ILE:HD12	1.91	0.51
34:FB:183:PHE:CE2	34:FB:197:PHE:CD2	2.98	0.51
1:GA:34:U:O2'	1:GA:35:G:OP1	2.26	0.51
28:G1:16:THR:HB	28:G1:41:VAL:HG21	1.93	0.51
14:EN:24:MET:HG2	14:EN:44:LEU:HD22	1.92	0.51
6:AF:69:ALA:N	6:AF:82:TYR:O	2.44	0.51
36:FD:25:VAL:HA	36:FD:161:LEU:CD2	2.41	0.51
33:DA:236:A:H2'	33:DA:237:G:C8	2.46	0.51
50:HR:41:PRO:HB2	50:HR:43:ARG:HG2	1.91	0.51
37:BE:96:MET:HE3	37:BE:115:LEU:HD21	1.92	0.51
26:CZ:40:THR:HG23	26:CZ:43:ILE:H	1.75	0.51
1:EA:1796:U:H2'	1:EA:1797:G:H8	1.75	0.51
15:CO:51:ALA:HB3	15:CO:78:VAL:HG13	1.93	0.51
39:DG:18:PHE:CD2	39:DG:59:LEU:HD21	2.46	0.51
1:CA:655:A:H4'	1:CA:656:G:OP1	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:FK:94:GLU:O	43:FK:97:ILE:HG22	2.10	0.51
19:CS:63:GLY:O	19:CS:64:ALA:HB3	2.10	0.51
1:CA:2318:G:C5	1:CA:2319:G:C6	2.99	0.51
24:AX:34:SER:HA	24:AX:48:LEU:O	2.11	0.51
1:CA:127:A:H5''	1:CA:128:C:C6	2.45	0.51
1:EA:1458:U:H4'	1:EA:1459:G:O5'	2.11	0.51
33:FA:620:C:H1'	36:FD:132:ILE:HG12	1.93	0.51
1:AA:2423:U:H5'	1:AA:2423:U:H6	1.76	0.51
7:EG:162:ARG:CZ	7:EG:168:VAL:HG21	2.40	0.51
52:DT:3:ASN:O	52:DT:5:LYS:N	2.29	0.51
11:CK:107:LEU:O	11:CK:109:SER:N	2.39	0.51
32:A5:23:LEU:H	32:A5:87:GLU:HB2	1.76	0.51
1:CA:2104:C:H41	1:CA:2183:A:H61	1.59	0.51
43:HK:15:GLN:OE1	43:HK:78:GLY:HA3	2.10	0.51
33:HA:1003:G:N2	33:HA:1037:C:O2	2.43	0.51
41:DI:7:TYR:CG	41:DI:8:GLY:N	2.78	0.51
33:HA:461:A:H3'	33:HA:461:A:N3	2.26	0.51
23:GW:9:THR:HG23	23:GW:10:ARG:CD	2.40	0.51
1:AA:248:G:H5'	1:AA:250:G:N7	2.26	0.51
41:HI:55:VAL:O	41:HI:94:LEU:CD2	2.59	0.51
1:CA:27:G:C4	1:CA:512:G:N2	2.79	0.51
38:BF:42:TRP:HB2	38:BF:59:TYR:HB2	1.93	0.51
36:DD:9:LEU:HD21	36:DD:22:LYS:HG3	1.93	0.51
51:FS:37:ARG:O	51:FS:70:LYS:HD2	2.09	0.51
1:GA:1993:U:H4'	4:GD:133:THR:CG2	2.40	0.51
6:AF:134:GLN:HG2	6:AF:135:ILE:HG13	1.92	0.51
20:AT:89:GLU:O	20:AT:91:GLN:N	2.41	0.51
18:ER:39:LEU:HA	18:ER:49:ILE:HG21	1.92	0.51
3:GC:16:VAL:N	3:GC:203:VAL:CG1	2.74	0.51
7:CG:84:LYS:CG	7:CG:132:LEU:H	2.24	0.51
11:EK:17:ARG:HB2	11:EK:45:GLU:HB2	1.93	0.51
33:BA:73:C:H6	33:BA:73:C:H5'	1.76	0.51
1:CA:2311:A:H3'	1:CA:2312:U:C6	2.46	0.51
28:A1:7:LYS:HE3	30:A3:33:THR:HG21	1.93	0.51
33:BA:1386:G:H2'	33:BA:1387:G:H8	1.75	0.51
22:AV:31:TYR:O	22:AV:93:ARG:N	2.36	0.51
1:EA:1869:G:H3'	1:EA:1870:C:H5''	1.92	0.51
54:HV:488:VAL:HB	54:HV:490:TYR:CE2	2.46	0.51
1:CA:783:A:C8	1:CA:784:G:H4'	2.46	0.51
1:GA:1723:G:H3'	1:GA:1724:G:C8	2.45	0.51
19:ES:69:LEU:HG	19:ES:107:VAL:HG13	1.92	0.51
15:EO:49:VAL:HG21	15:EO:82:ALA:HA	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2636:C:H2'	1:CA:2637:U:C6	2.46	0.51
33:FA:1414:U:O2	33:FA:1487:G:N2	2.43	0.51
6:GF:1:ALA:HB3	6:GF:4:HIS:HB2	1.92	0.51
3:GC:29:PHE:CE2	3:GC:31:PRO:HG2	2.45	0.51
33:BA:642:A:C6	33:BA:643:C:C4	2.98	0.51
54:DV:217:GLU:O	54:DV:220:GLN:N	2.43	0.51
39:DG:51:ALA:O	39:DG:55:GLY:N	2.43	0.51
54:BV:441:GLU:OE1	54:BV:472:ARG:NH2	2.42	0.51
18:ER:21:ARG:NH2	18:ER:93:PHE:CZ	2.79	0.51
1:CA:747:U:C5	1:CA:2613:U:C5	2.99	0.51
33:DA:35:G:H2'	33:DA:36:C:C6	2.46	0.51
1:GA:2898:U:O2'	10:GJ:134:ALA:O	2.25	0.51
1:EA:2657:A:O3'	7:EG:159:LYS:NZ	2.43	0.51
2:AB:81:G:C5	2:AB:82:U:C5	2.99	0.51
1:AA:2815:C:C2	1:AA:2816:G:C8	2.99	0.51
1:CA:1857:G:O2'	1:CA:1858:A:OP2	2.28	0.51
23:AW:63:ASP:N	23:AW:63:ASP:OD1	2.43	0.51
10:EJ:135:GLN:CD	10:EJ:135:GLN:N	2.63	0.51
1:GA:2423:U:H6	1:GA:2423:U:H5'	1.76	0.51
14:GN:117:ASP:OD1	14:GN:118:ARG:N	2.44	0.51
39:DG:4:ARG:HG3	39:DG:5:ARG:N	2.25	0.51
23:CW:17:ALA:HA	23:CW:35:ILE:HG23	1.92	0.51
41:HI:95:ARG:HA	41:HI:98:LEU:HB3	1.93	0.51
42:FJ:35:GLN:HG3	42:FJ:36:VAL:H	1.75	0.51
16:AP:19:PHE:N	16:AP:19:PHE:HD1	2.09	0.51
26:EZ:8:GLN:HB3	26:EZ:31:ILE:HA	1.91	0.51
51:FS:7:LYS:HE2	51:FS:7:LYS:HA	1.93	0.51
33:BA:1004:A:H2'	33:BA:1005:A:O4'	2.11	0.51
49:DQ:12:VAL:O	49:DQ:13:VAL:HB	2.10	0.51
33:BA:1156:G:O2'	33:BA:1180:A:N6	2.39	0.51
44:HL:44:LYS:CB	44:HL:45:PRO:CD	2.89	0.51
1:GA:2665:A:C2	1:GA:2666:C:C6	2.99	0.51
1:EA:272:A:O2'	1:EA:273:G:O5'	2.26	0.51
54:DV:196:ALA:O	54:DV:198:GLN:N	2.44	0.51
1:GA:639:U:H2'	1:GA:640:C:C6	2.46	0.51
3:AC:259:ASN:OD1	3:AC:262:THR:N	2.40	0.51
33:FA:660:C:H2'	33:FA:661:G:O4'	2.11	0.51
51:FS:63:THR:HG22	51:FS:64:ASP:N	2.26	0.51
9:AI:107:GLU:HA	9:AI:110:GLN:HB3	1.93	0.51
12:CL:123:ARG:HA	12:CL:143:GLU:O	2.11	0.51
44:DL:81:LEU:HB3	44:DL:98:VAL:CG1	2.41	0.51
42:FJ:85:ASP:OD2	42:FJ:89:ARG:NH2	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:847:G:H2'	33:BA:848:C:C6	2.46	0.51
33:FA:574:A:HO2'	33:FA:882:C:HO2'	1.57	0.51
42:HJ:50:THR:HG21	42:HJ:64:GLN:HE21	1.76	0.51
52:BT:9:LYS:HA	52:BT:12:ILE:HG23	1.91	0.51
1:AA:404:A:H1'	1:AA:405:U:OP2	2.11	0.51
1:GA:1321:A:O2'	19:GS:11:ARG:NH2	2.44	0.51
50:HR:36:SER:HB3	53:HU:4:ILE:HG12	1.92	0.51
33:FA:524:G:H2'	33:FA:525:C:C6	2.45	0.51
16:EP:42:PHE:CE1	16:EP:62:LYS:HD2	2.46	0.51
37:DE:157:ARG:HG2	40:DH:43:GLU:O	2.11	0.51
33:DA:1294:G:C6	33:DA:1295:U:C4	2.99	0.51
35:DC:193:TYR:CD1	35:DC:193:TYR:N	2.78	0.51
10:GJ:3:THR:HB	10:GJ:44:TYR:OH	2.10	0.50
10:EJ:6:ALA:CB	10:EJ:45:THR:HG21	2.41	0.50
1:EA:1107:G:OP1	32:E5:59:LEU:N	2.43	0.50
33:HA:1330:U:H5''	45:HM:23:TYR:CZ	2.45	0.50
33:HA:1007:U:H2'	33:HA:1008:U:H5'	1.94	0.50
1:CA:1998:A:P	4:CD:141:ARG:HH22	2.34	0.50
32:A5:74:ASP:HA	32:A5:77:VAL:HG23	1.93	0.50
23:GW:45:HIS:HB2	23:GW:50:VAL:HG13	1.93	0.50
1:GA:1924:C:H2'	1:GA:1925:C:C6	2.47	0.50
42:DJ:28:THR:O	42:DJ:32:THR:HG22	2.11	0.50
32:E5:43:LYS:HZ3	32:E5:98:GLU:HB2	1.75	0.50
33:HA:1083:U:H5''	33:HA:1086:U:C5	2.46	0.50
1:AA:1080:A:H2'	1:AA:1081:U:O4'	2.11	0.50
4:AD:151:THR:HG22	4:AD:152:PRO:HD3	1.92	0.50
1:CA:2745:C:C4	1:CA:2746:U:C4	2.99	0.50
1:EA:2683:C:O2	11:EK:70:ARG:NH2	2.44	0.50
1:CA:141:G:N1	20:CT:1:MET:O	2.44	0.50
33:DA:71:A:O2'	33:DA:72:A:O4'	2.29	0.50
6:GF:134:GLN:HG2	6:GF:135:ILE:N	2.26	0.50
33:HA:844:G:C2'	33:HA:845:A:H5''	2.41	0.50
49:FQ:76:VAL:HG23	49:FQ:77:ARG:H	1.77	0.50
9:EI:31:GLY:O	9:EI:60:VAL:HG11	2.11	0.50
54:DV:114:CYS:SG	54:DV:143:LYS:HD2	2.51	0.50
5:AE:108:ILE:HD11	12:AL:2:ARG:NH1	2.26	0.50
46:HN:51:LEU:HB3	46:HN:52:PRO:CD	2.41	0.50
1:CA:2314:A:H2'	1:CA:2315:G:C8	2.45	0.50
48:DP:52:LEU:HD23	48:DP:75:ILE:HG22	1.92	0.50
19:ES:69:LEU:HG	19:ES:107:VAL:CG1	2.41	0.50
10:EJ:36:LEU:O	10:EJ:121:LYS:NZ	2.44	0.50
11:CK:61:VAL:CG2	11:CK:87:LEU:HD11	2.41	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:53:GLN:N	21:AU:54:PRO:HD2	2.26	0.50
33:DA:1391:U:H2'	33:DA:1392:G:C8	2.46	0.50
1:GA:631:A:N3	1:GA:2415:G:O2'	2.40	0.50
1:EA:45:G:C5'	1:EA:46:G:H5'	2.41	0.50
1:AA:2804:U:H2'	1:AA:2805:C:C6	2.46	0.50
21:AU:91:LYS:O	21:AU:92:VAL:HG12	2.11	0.50
19:AS:18:ARG:O	19:AS:19:LEU:CB	2.59	0.50
9:AI:98:GLY:HA3	9:AI:137:LEU:HD13	1.92	0.50
1:EA:2661:G:C6	1:EA:2662:A:C2	2.99	0.50
17:AQ:63:ARG:HH12	17:AQ:95:ALA:C	2.14	0.50
32:A5:29:ASP:HA	32:A5:108:VAL:HG11	1.91	0.50
1:CA:163:C:O2'	1:CA:164:C:P	2.69	0.50
10:CJ:81:ILE:HG13	10:CJ:82:GLY:H	1.76	0.50
5:AE:46:GLN:HG3	5:AE:87:ALA:H	1.76	0.50
37:DE:110:ALA:O	37:DE:111:MET:HB3	2.11	0.50
37:FE:106:ILE:HD11	37:FE:124:LEU:CD2	2.41	0.50
42:FJ:32:THR:CG2	42:FJ:83:THR:HA	2.42	0.50
38:DF:5:GLU:OE1	50:DR:24:LYS:HE2	2.12	0.50
33:BA:451:A:H4'	33:BA:452:A:O5'	2.10	0.50
17:AQ:26:ALA:HB1	17:AQ:30:VAL:CG2	2.41	0.50
21:CU:6:ARG:NH2	21:CU:25:LYS:O	2.44	0.50
51:DS:31:LEU:HD13	51:DS:47:LEU:HD21	1.93	0.50
7:AG:39:ALA:HB1	7:AG:57:TYR:CD2	2.46	0.50
36:DD:91:LEU:HD21	36:DD:195:ILE:HD11	1.92	0.50
52:FT:30:THR:HA	52:FT:33:LYS:HG3	1.94	0.50
1:CA:1607:C:H4'	1:CA:1608:A:O5'	2.10	0.50
39:HG:107:ALA:HB2	39:HG:133:THR:HG23	1.92	0.50
39:FG:146:GLU:HA	39:FG:149:LYS:HE2	1.93	0.50
3:AC:28:PRO:HG2	3:AC:33:LEU:HD11	1.93	0.50
33:DA:1010:U:H2'	33:DA:1011:C:C6	2.46	0.50
45:HM:106:ALA:HB3	45:HM:110:LYS:HD2	1.93	0.50
33:FA:21:G:H2'	33:FA:22:G:C8	2.46	0.50
6:EF:39:VAL:HG13	6:EF:40:GLY:H	1.76	0.50
24:EX:39:VAL:HG22	24:EX:44:ARG:O	2.11	0.50
19:AS:69:LEU:HG	19:AS:107:VAL:HG22	1.93	0.50
1:GA:2075:U:C4	1:GA:2238:G:C6	3.00	0.50
1:CA:279:A:N6	1:CA:361:G:H1'	2.26	0.50
51:HS:51:VAL:HG22	51:HS:71:LEU:HD21	1.92	0.50
4:ED:70:LYS:O	4:ED:71:ALA:CB	2.58	0.50
20:GT:67:VAL:O	20:GT:68:LYS:HG3	2.11	0.50
11:GK:114:LYS:HE3	11:GK:118:LEU:HD11	1.93	0.50
9:GI:99:LYS:HA	9:GI:137:LEU:HD11	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DE:90:THR:HB	37:DE:135:ASN:ND2	2.26	0.50
52:BT:6:SER:C	52:BT:8:LYS:H	2.14	0.50
3:GC:77:VAL:HG23	3:GC:111:ALA:HA	1.94	0.50
54:BV:552:ALA:O	54:BV:556:GLY:N	2.40	0.50
51:DS:45:ILE:HA	51:DS:62:VAL:CG1	2.40	0.50
33:DA:386:C:C4	33:DA:387:U:C5	2.99	0.50
1:CA:668:A:H2'	1:CA:670:A:H62	1.76	0.50
1:EA:1647:U:P	1:EA:1647:U:H3'	2.51	0.50
22:CV:6:ALA:HB1	22:CV:40:ILE:CG2	2.41	0.50
36:BD:58:LYS:HE2	36:BD:69:GLU:OE2	2.11	0.50
33:BA:978:A:O2'	33:BA:1322:C:H5	1.93	0.50
1:CA:2327:A:H2'	1:CA:2328:A:C8	2.46	0.50
1:AA:1799:G:O2'	3:AC:179:GLU:OE2	2.28	0.50
10:CJ:38:GLY:O	10:CJ:43:GLU:HB2	2.11	0.50
1:GA:1063:G:C6	1:GA:1076:C:N3	2.79	0.50
23:CW:41:GLY:C	23:CW:43:LYS:H	2.13	0.50
1:AA:620:G:H4'	1:AA:621:A:O5'	2.12	0.50
6:CF:38:GLY:HA2	6:CF:85:GLY:HA3	1.94	0.50
10:EJ:81:ILE:HG23	10:EJ:82:GLY:H	1.76	0.50
36:FD:72:PHE:CZ	36:FD:200:ILE:HD11	2.47	0.50
50:FR:27:ALA:O	50:FR:30:LYS:HG2	2.12	0.50
16:GP:92:ARG:O	16:GP:93:LYS:HB2	2.11	0.50
4:GD:151:THR:HG22	4:GD:152:PRO:HD3	1.92	0.50
1:CA:788:A:H3'	1:CA:790:U:C5	2.46	0.50
43:FK:52:PHE:HE2	43:FK:65:VAL:HG11	1.76	0.50
1:CA:876:C:C2'	1:CA:877:A:O5'	2.59	0.50
9:EI:72:THR:OG1	9:EI:112:LYS:NZ	2.45	0.50
54:HV:85:ASN:HD22	54:HV:382:ILE:HG13	1.76	0.50
1:AA:545:U:H3'	1:AA:546:U:H4'	1.93	0.50
1:GA:1835:G:H1'	1:GA:1931:U:C2	2.46	0.50
1:GA:1847:A:H5''	1:GA:1848:A:N7	2.26	0.50
1:AA:2134:A:O2'	1:AA:2135:A:O4'	2.29	0.50
10:GJ:73:VAL:HG23	10:GJ:74:TYR:H	1.75	0.50
44:FL:114:ARG:HB3	44:FL:119:VAL:HB	1.94	0.50
10:AJ:73:VAL:HG23	10:AJ:74:TYR:H	1.76	0.50
54:BV:169:LEU:HB2	54:BV:263:LEU:HB3	1.94	0.50
11:AK:36:GLY:HA2	11:AK:62:VAL:O	2.12	0.50
54:FV:663:MET:HG2	54:FV:682:MET:SD	2.50	0.50
1:EA:400:G:N7	24:EX:56:ARG:NH1	2.59	0.50
1:CA:1474:U:H2'	1:CA:1475:G:H5'	1.93	0.50
48:FP:19:VAL:HG12	48:FP:37:GLY:C	2.32	0.50
3:AC:93:VAL:HG21	3:AC:115:ILE:HD11	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2537:U:H2'	1:GA:2538:C:C6	2.46	0.50
15:AO:35:ILE:HG21	15:AO:71:ALA:HA	1.94	0.50
36:FD:125:VAL:O	36:FD:127:GLY:N	2.44	0.50
18:AR:48:LYS:O	18:AR:48:LYS:HE2	2.11	0.50
13:EM:11:LYS:HE2	13:EM:87:GLY:O	2.11	0.50
3:GC:144:GLU:HA	3:GC:151:GLY:HA2	1.92	0.50
32:A5:24:SER:C	32:A5:116:GLU:CG	2.79	0.50
1:EA:2427:C:H5'	1:EA:2428:G:OP1	2.11	0.50
1:AA:1605:C:C2'	1:AA:1606:C:H5'	2.42	0.50
1:GA:1177:G:H2'	1:GA:1178:C:O4'	2.11	0.50
16:AP:50:ARG:CZ	16:AP:56:SER:HB3	2.41	0.50
6:AF:57:ALA:HA	6:AF:62:GLN:O	2.11	0.50
33:HA:71:A:N6	33:HA:100:G:C8	2.80	0.50
34:DB:22:TRP:HB3	34:DB:38:HIS:NE2	2.26	0.50
18:CR:24:LYS:HA	18:CR:94:THR:HG23	1.94	0.50
1:AA:1789:A:P	3:AC:220:ARG:HH11	2.35	0.50
1:GA:42:A:H2'	1:GA:43:G:C5'	2.41	0.50
43:HK:53:ARG:HH12	43:HK:57:LYS:HB3	1.76	0.50
1:EA:2104:C:H2'	1:EA:2105:U:C4'	2.41	0.50
34:FB:86:CYS:SG	34:FB:88:GLN:NE2	2.85	0.50
45:HM:114:LYS:HB2	45:HM:115:PRO:HD3	1.93	0.50
1:AA:1477:A:N6	1:AA:1514:G:O2'	2.43	0.50
34:DB:72:LYS:NZ	34:DB:204:ASP:HB3	2.27	0.50
41:HI:21:ILE:CD1	41:HI:87:LEU:HD12	2.42	0.50
44:DL:99:ARG:HD2	44:DL:104:CYS:SG	2.51	0.50
16:AP:13:LYS:NZ	16:AP:80:VAL:HB	2.26	0.50
4:ED:70:LYS:O	4:ED:71:ALA:HB3	2.11	0.50
1:CA:1970:A:OP2	59:CA:3469:HOH:O	2.20	0.50
12:CL:92:LEU:HA	12:CL:125:LEU:HD21	1.94	0.50
1:AA:1198:U:H2'	1:AA:1199:U:C6	2.46	0.50
37:BE:133:PRO:HA	37:BE:136:VAL:CG1	2.42	0.50
33:FA:946:A:H2'	33:FA:947:G:C8	2.46	0.50
7:EG:75:VAL:O	7:EG:79:THR:HG22	2.10	0.50
54:DV:497:LYS:HG2	54:DV:523:TYR:HB2	1.93	0.50
33:FA:78:A:HO2'	33:FA:79:G:H8	1.59	0.50
11:CK:18:ARG:HB2	11:CK:45:GLU:HG3	1.94	0.50
33:FA:224:U:C2	33:FA:225:C:C5	2.99	0.50
39:DG:70:ARG:HG3	39:DG:96:ARG:HG2	1.93	0.50
1:AA:772:C:N4	59:AA:3711:HOH:O	2.27	0.50
1:GA:2232:C:P	24:GX:26:ARG:HH22	2.34	0.50
1:GA:1006:C:C2	1:GA:1138:G:N2	2.79	0.50
52:BT:62:ALA:HA	52:BT:67:ILE:HG22	1.92	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:61:C:OP2	25:CY:47:ARG:NH2	2.38	0.50
34:DB:125:PHE:O	34:DB:125:PHE:CG	2.64	0.50
1:AA:613:A:HO2'	1:AA:614:A:P	2.34	0.50
1:AA:1607:C:H4'	1:AA:1608:A:O5'	2.12	0.50
52:DT:6:SER:C	52:DT:8:LYS:H	2.14	0.50
1:CA:1378:A:C4	1:CA:1380:G:N7	2.80	0.50
23:GW:23:LYS:HE2	23:GW:24:ARG:HB3	1.92	0.50
12:CL:93:ASN:OD1	12:CL:94:THR:N	2.44	0.50
33:BA:687:A:C6	33:BA:703:G:N3	2.79	0.50
4:ED:118:PHE:HZ	14:EN:1:MET:HB3	1.77	0.50
33:HA:1296:C:H4'	33:HA:1302:C:N3	2.27	0.50
46:BN:21:PHE:HA	46:BN:25:ALA:HB3	1.92	0.50
33:FA:451:A:H8	33:FA:452:A:C5	2.30	0.50
33:BA:1279:G:OP2	42:BJ:11:LYS:NZ	2.44	0.50
9:AI:18:ASN:N	9:AI:19:PRO:HD3	2.27	0.50
2:EB:41:G:H3'	2:EB:42:C:C5'	2.41	0.50
49:HQ:17:MET:HB3	49:HQ:20:SER:HB3	1.92	0.50
1:EA:527:C:OP1	59:EA:3249:HOH:O	2.19	0.50
17:EQ:97:ILE:HD11	17:EQ:105:PHE:CA	2.41	0.50
43:HK:55:SER:HA	43:HK:57:LYS:CE	2.42	0.50
40:DH:106:THR:HG21	40:DH:121:LEU:HD13	1.94	0.50
16:GP:105:LYS:HA	16:GP:108:ARG:CD	2.41	0.50
1:CA:959:A:C6	1:CA:960:A:C6	3.00	0.50
33:DA:1513:A:H2'	33:DA:1514:G:C8	2.47	0.50
16:GP:92:ARG:O	16:GP:92:ARG:HG2	2.12	0.50
41:HI:21:ILE:HG12	41:HI:63:LEU:CD1	2.42	0.50
33:DA:444:G:C6	33:DA:491:G:C6	3.00	0.50
52:DT:62:ALA:HB1	52:DT:69:LYS:H	1.75	0.50
33:FA:747:A:N6	33:FA:748:G:C6	2.79	0.50
3:CC:123:ILE:O	3:CC:123:ILE:HG13	2.12	0.50
3:AC:166:ARG:HB3	3:AC:171:VAL:HG12	1.93	0.50
37:DE:46:VAL:HG11	37:DE:118:ALA:HB2	1.93	0.50
43:DK:81:ASN:HB3	43:DK:106:ARG:HB3	1.94	0.50
1:EA:2705:A:H2'	1:EA:2706:A:O4'	2.11	0.50
1:GA:1476:U:OP2	1:GA:1514:G:N1	2.40	0.50
33:BA:1444:U:H1'	33:BA:1459:G:N2	2.26	0.50
2:GB:43:C:O2	6:GF:91:ARG:NH2	2.44	0.50
1:EA:460:A:OP1	29:E2:41:ARG:NH1	2.38	0.50
45:FM:49:SER:HB2	45:FM:52:GLN:HB2	1.92	0.50
33:HA:502:A:H2'	33:HA:503:C:O4'	2.11	0.50
32:E5:35:VAL:HA	32:E5:38:MET:SD	2.52	0.50
1:GA:201:C:OP1	24:GX:17:ARG:NH1	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:69:ARG:HG3	20:AT:70:HIS:H	1.76	0.50
1:CA:833:A:H2'	1:CA:834:G:C8	2.47	0.50
33:HA:778:G:C6	33:HA:779:C:N3	2.80	0.50
33:DA:448:A:H3'	33:DA:449:G:C8	2.47	0.50
1:EA:2481:G:HO2'	1:EA:2482:A:H8	1.60	0.50
24:AX:29:LEU:HD23	24:AX:29:LEU:N	2.27	0.50
1:CA:778:G:C6	1:CA:779:U:N3	2.80	0.50
9:CI:98:GLY:HA3	9:CI:137:LEU:HD22	1.94	0.50
3:AC:140:VAL:CG2	3:AC:189:ALA:HB1	2.42	0.50
1:AA:1605:C:H2'	1:AA:1606:C:H5'	1.93	0.50
1:AA:1025:G:H4'	1:AA:1026:G:OP2	2.11	0.50
1:AA:996:A:H4'	17:AQ:91:ARG:HG2	1.93	0.50
1:GA:2140:G:N7	1:GA:2152:G:H1'	2.27	0.50
1:CA:2331:G:O2'	1:CA:2336:A:N1	2.45	0.50
23:CW:60:ALA:HA	23:CW:81:ILE:HD12	1.94	0.50
33:FA:158:G:H2'	33:FA:159:G:C5'	2.42	0.50
25:CY:3:ALA:HA	25:CY:6:LEU:CB	2.41	0.50
6:EF:137:PHE:HB2	6:EF:140:ILE:HD12	1.94	0.50
6:GF:174:PHE:CD2	6:GF:176:PHE:CE2	3.00	0.50
1:GA:1071:G:N3	1:GA:1072:C:H1'	2.26	0.50
1:AA:2849:U:N3	1:AA:2867:G:O4'	2.37	0.50
33:DA:1277:C:O2'	33:DA:1279:G:H8	1.94	0.50
36:FD:9:LEU:HD21	36:FD:22:LYS:HG3	1.94	0.50
33:DA:1478:U:H2'	33:DA:1479:C:H6	1.77	0.50
54:HV:164:ALA:HB1	54:HV:262:ILE:HD11	1.94	0.50
36:DD:12:SER:OG	36:DD:17:THR:O	2.22	0.50
1:CA:1220:G:C2	1:CA:1221:C:C2	2.99	0.50
20:GT:54:GLU:HG3	20:GT:88:LYS:HB2	1.92	0.50
35:DC:42:TYR:CZ	35:DC:90:VAL:HG21	2.46	0.50
6:EF:39:VAL:HG11	6:EF:49:LEU:HB2	1.94	0.50
1:CA:875:G:C2'	1:CA:876:C:H5'	2.41	0.50
37:BE:136:VAL:O	37:BE:138:ARG:N	2.44	0.50
1:EA:934:U:H2'	1:EA:935:C:C6	2.46	0.50
54:DV:345:SER:N	54:DV:375:LYS:O	2.32	0.50
41:BI:120:LYS:O	41:BI:121:ALA:HB3	2.12	0.50
20:ET:48:GLN:O	20:ET:52:GLU:HA	2.11	0.50
1:CA:1168:G:H3'	1:CA:1169:A:C8	2.47	0.50
21:AU:82:VAL:HG12	21:AU:83:GLY:N	2.26	0.50
16:CP:9:GLN:HA	16:CP:12:MET:SD	2.52	0.50
44:BL:33:VAL:HG21	54:BV:429:GLU:HG3	1.93	0.50
1:GA:846:U:O2'	1:GA:847:U:O5'	2.28	0.50
1:CA:1088:A:C8	1:CA:1088:A:H5''	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:1014:A:C2	51:DS:34:TRP:CZ2	2.99	0.50
1:AA:394:C:N3	1:AA:395:U:C4	2.80	0.50
1:GA:2680:U:H5'	4:GD:194:PRO:HA	1.93	0.50
14:GN:38:LEU:HB3	14:GN:39:PRO:HD3	1.93	0.50
49:FQ:27:ARG:HG2	49:FQ:40:ARG:O	2.11	0.50
39:BG:88:PRO:HD2	39:BG:151:PHE:O	2.11	0.50
1:AA:747:U:OP2	19:AS:90:LYS:NZ	2.44	0.50
38:DF:97:THR:O	38:DF:98:GLU:HB3	2.12	0.50
1:CA:1025:G:N2	59:CA:3700:HOH:O	2.29	0.50
49:DQ:76:VAL:HG23	49:DQ:77:ARG:H	1.75	0.50
35:HC:127:ARG:O	35:HC:127:ARG:HG3	2.11	0.50
33:BA:324:G:N2	33:BA:326:G:H3'	2.27	0.50
34:DB:189:ASN:OD1	34:DB:190:SER:N	2.44	0.50
1:EA:996:A:H4'	17:EQ:91:ARG:HG2	1.93	0.50
10:EJ:43:GLU:O	10:EJ:44:TYR:C	2.49	0.50
1:CA:2107:G:N2	1:CA:2108:A:H1'	2.27	0.50
16:CP:50:ARG:HD3	16:CP:51:ASN:N	2.27	0.50
1:GA:2756:U:H1'	1:GA:2757:A:H5''	1.92	0.50
9:GI:124:MET:O	9:GI:127:SER:OG	2.26	0.50
37:FE:104:GLY:HA2	37:FE:122:ASN:HA	1.94	0.50
1:AA:2269:G:O2'	23:AW:18:LYS:HG2	2.12	0.50
44:BL:34:CYS:HA	44:BL:54:ARG:O	2.12	0.50
7:AG:4:ALA:HB2	7:AG:65:GLY:HA2	1.92	0.50
32:A5:45:GLY:HA2	32:A5:49:GLY:HA2	1.94	0.50
40:BH:10:MET:HE2	40:BH:33:LYS:HG2	1.94	0.50
33:DA:299:G:C6	33:DA:300:A:C6	3.00	0.50
24:GX:76:LYS:HG3	24:GX:77:TYR:H	1.76	0.50
43:DK:88:GLY:H	43:DK:114:THR:CG2	2.24	0.50
34:DB:67:LEU:HD22	34:DB:69:VAL:HG13	1.94	0.50
12:CL:57:LEU:HD11	12:CL:61:LEU:HD21	1.94	0.50
33:BA:210:C:N3	33:FA:211:G:OP2	2.45	0.50
3:CC:16:VAL:H	3:CC:203:VAL:HG12	1.76	0.50
11:EK:10:VAL:HG21	11:EK:16:ALA:HB3	1.92	0.50
33:FA:42:G:N2	33:FA:401:C:O2	2.45	0.50
1:AA:1857:G:O2'	1:AA:1858:A:OP2	2.21	0.50
1:GA:2297:A:N1	1:GA:2321:U:H5	2.09	0.50
8:GH:40:THR:C	8:GH:42:LYS:H	2.14	0.50
7:CG:25:ILE:HG22	7:CG:78:VAL:HG21	1.92	0.50
35:FC:173:VAL:HG12	35:FC:175:LEU:HD13	1.93	0.50
33:DA:9:G:OP2	37:DE:126:LYS:NZ	2.30	0.50
21:CU:81:ARG:O	21:CU:96:LYS:HG2	2.12	0.50
33:DA:1415:G:C6	33:DA:1486:G:C6	3.00	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:1237:C:O2	33:DA:1334:G:O2'	2.24	0.50
1:EA:1930:G:O2'	1:EA:1968:G:O6	2.20	0.50
33:BA:463:U:H5'	33:BA:464:U:OP2	2.11	0.50
1:AA:2415:G:H4'	12:AL:66:PHE:HB2	1.94	0.50
1:GA:2394:C:OP1	30:G3:29:ARG:NH2	2.44	0.50
9:EI:11:GLN:HG3	9:EI:55:PRO:HA	1.94	0.50
54:DV:96:THR:O	54:DV:99:VAL:N	2.41	0.50
43:DK:16:VAL:O	43:DK:17:SER:HB3	2.11	0.50
1:EA:1253:A:OP1	17:EQ:32:ARG:NH1	2.44	0.50
34:BB:56:LEU:HD21	34:BB:216:VAL:HG13	1.93	0.50
1:CA:1009:A:OP2	59:CA:3766:HOH:O	2.20	0.50
33:FA:1242:G:C6	33:FA:1243:C:C4	2.99	0.50
25:EY:8:GLU:O	25:EY:12:GLU:HB2	2.12	0.50
1:GA:2531:A:H5'	7:GG:156:TYR:CE1	2.47	0.50
40:DH:112:THR:HG23	40:DH:115:ALA:H	1.77	0.50
16:GP:103:THR:HG23	16:GP:103:THR:O	2.11	0.50
16:CP:52:ARG:HG3	16:CP:52:ARG:NH1	2.26	0.50
41:FI:57:MET:O	41:FI:59:GLU:N	2.45	0.50
33:BA:704:A:C4	33:BA:705:G:C8	2.99	0.50
23:GW:18:LYS:HG3	23:GW:19:ARG:N	2.27	0.50
23:GW:56:HIS:N	23:GW:56:HIS:CD2	2.80	0.50
18:GR:24:LYS:HA	18:GR:94:THR:HG23	1.94	0.50
6:AF:7:TYR:HD1	6:AF:172:PHE:HZ	1.60	0.50
1:EA:2352:A:C4	1:EA:2366:A:C2	3.00	0.50
5:CE:29:HIS:HD2	12:CL:8:PRO:HA	1.75	0.50
1:AA:947:A:H2'	1:AA:948:C:C6	2.46	0.50
33:BA:409:U:OP1	36:BD:24:GLY:HA3	2.12	0.50
1:EA:2804:U:H2'	1:EA:2805:C:C6	2.47	0.50
1:CA:545:U:H2'	1:CA:546:U:O3'	2.11	0.50
34:HB:67:LEU:HD22	34:HB:69:VAL:HG13	1.94	0.50
34:HB:69:VAL:HG23	34:HB:162:VAL:HB	1.93	0.50
37:BE:155:ALA:HB1	40:BH:66:PHE:CZ	2.46	0.50
34:DB:112:ARG:HG2	34:DB:116:LEU:HD23	1.94	0.50
21:AU:85:ARG:HD3	21:AU:86:PHE:N	2.27	0.50
24:EX:39:VAL:HG21	24:EX:42:GLU:HB2	1.93	0.50
33:BA:1246:A:C2	33:BA:1247:U:C2	3.00	0.50
16:EP:96:LEU:HB3	16:EP:99:LEU:HD22	1.94	0.50
7:GG:51:PHE:CE1	7:GG:68:ARG:HA	2.47	0.50
1:AA:2106:U:H3	1:AA:2184:A:HO2'	1.55	0.50
1:AA:2106:U:N3	1:AA:2184:A:O2'	2.43	0.50
10:AJ:30:THR:HG22	10:AJ:31:GLU:N	2.26	0.50
1:AA:1339:G:N2	1:AA:1603:A:H1'	2.27	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1737:G:C5'	1:EA:1738:G:P	3.00	0.50
33:DA:885:G:OP1	44:DL:15:LYS:NZ	2.37	0.50
1:CA:994:C:O2	18:CR:10:LYS:HE2	2.12	0.50
33:BA:1084:G:C5	33:BA:1085:U:C4	3.00	0.50
36:FD:39:GLY:H	36:FD:42:GLY:HA3	1.77	0.50
20:CT:13:ALA:HB1	25:CY:33:ALA:HB1	1.94	0.50
29:G2:35:ARG:HG2	29:G2:42:LEU:HD21	1.93	0.50
1:AA:585:G:C6	1:AA:1251:C:C2	3.00	0.50
1:AA:2062:A:OP1	59:AA:3491:HOH:O	2.20	0.50
2:GB:114:C:H1'	15:GO:47:VAL:HG11	1.93	0.50
4:AD:86:GLU:N	4:AD:86:GLU:CD	2.65	0.50
11:CK:13:ASN:N	11:CK:13:ASN:OD1	2.42	0.50
17:GQ:91:ARG:HH21	17:GQ:93:ILE:HG21	1.74	0.50
10:EJ:65:THR:CG2	10:EJ:66:GLY:N	2.74	0.50
33:HA:1032:G:C2	33:HA:1033:G:H1'	2.47	0.50
1:CA:1509:A:HO2'	1:CA:1510:G:P	2.35	0.50
23:EW:40:ARG:HB2	23:EW:56:HIS:CD2	2.46	0.50
33:HA:409:U:H2'	33:HA:410:G:O4'	2.12	0.50
33:FA:1151:A:C2	33:FA:1152:A:C5	3.00	0.50
44:FL:34:CYS:HA	44:FL:54:ARG:O	2.12	0.50
9:GI:23:VAL:HB	9:GI:27:LEU:HD23	1.94	0.50
1:GA:1655:A:H5'	4:GD:118:PHE:CD1	2.46	0.50
35:HC:71:ALA:HA	35:HC:106:VAL:CG2	2.42	0.50
1:AA:335:C:H5''	21:AU:81:ARG:HD3	1.94	0.50
1:AA:1378:A:H4'	1:AA:1379:U:OP1	2.12	0.50
1:CA:653:U:H3'	1:CA:654:A:H5''	1.94	0.50
14:CN:26:GLY:CA	14:CN:75:ILE:HD13	2.42	0.50
18:ER:1:MET:HA	18:ER:42:ALA:O	2.12	0.50
1:EA:1078:U:H5''	1:EA:1079:C:OP1	2.12	0.50
44:DL:43:LYS:HG2	44:DL:44:LYS:HG3	1.93	0.50
1:GA:2307:G:O6	6:GF:40:GLY:HA3	2.12	0.50
12:CL:77:ILE:CD1	12:CL:108:ALA:HB1	2.42	0.50
5:AE:37:ALA:HA	5:AE:40:ARG:HD3	1.94	0.50
10:AJ:72:LYS:HE3	10:AJ:74:TYR:CE1	2.47	0.50
24:GX:17:ARG:N	24:GX:17:ARG:HD2	2.27	0.50
33:DA:481:G:H4'	33:DA:481:G:OP1	2.12	0.50
33:BA:420:U:C2'	33:BA:421:U:H5''	2.41	0.50
33:DA:211:G:H3'	33:DA:211:G:N3	2.27	0.50
14:GN:85:PRO:HA	14:GN:88:ALA:HB2	1.94	0.50
34:FB:18:GLN:HG2	34:FB:189:ASN:ND2	2.27	0.50
21:GU:82:VAL:HG12	21:GU:83:GLY:N	2.27	0.50
11:AK:80:ASP:HB2	16:AP:67:GLU:HG3	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:422:A:C2	1:CA:423:A:C4	3.00	0.50
1:EA:2337:G:C2	1:EA:2338:C:C6	3.00	0.50
17:GQ:81:GLY:O	17:GQ:85:ALA:N	2.40	0.50
52:BT:18:ARG:O	52:BT:22:ALA:N	2.43	0.50
1:AA:247:G:N7	1:AA:249:C:C2	2.80	0.50
33:HA:463:U:H5'	33:HA:464:U:OP2	2.12	0.50
28:A1:36:LYS:HG3	28:A1:47:ILE:HD12	1.94	0.50
4:ED:62:LYS:HB2	4:ED:63:PRO:HD3	1.92	0.50
7:CG:59:ASP:HB3	7:CG:63:GLN:HG2	1.93	0.50
1:EA:2724:U:P	4:ED:116:LYS:HZ2	2.35	0.50
1:AA:2054:A:H2'	27:A0:4:GLN:NE2	2.27	0.50
42:HJ:54:SER:O	46:HN:81:ARG:NH1	2.43	0.50
52:HT:47:ALA:HB1	52:HT:83:ILE:HG22	1.93	0.50
31:A4:7:VAL:HG23	31:A4:8:LYS:H	1.76	0.50
36:HD:95:GLU:HG2	36:HD:186:PRO:HG3	1.93	0.50
1:AA:2611:C:H2'	1:AA:2612:C:H6	1.77	0.50
1:CA:1292:G:H2'	1:CA:1293:C:C6	2.47	0.50
21:GU:64:ILE:HD11	21:GU:69:VAL:HG11	1.93	0.50
33:HA:1218:C:H2'	33:HA:1219:A:C8	2.47	0.50
54:BV:550:ILE:N	54:BV:551:PRO:CD	2.75	0.50
38:DF:91:ARG:NE	38:DF:93:LYS:HD3	2.26	0.50
1:GA:1187:G:OP2	59:GA:3366:HOH:O	2.19	0.49
34:FB:14:HIS:O	34:FB:14:HIS:CG	2.65	0.49
54:FV:95:PHE:CE1	54:FV:464:LEU:HD22	2.47	0.49
33:DA:1491:G:H5'	33:DA:1492:A:OP1	2.12	0.49
33:DA:149:A:C2	33:DA:174:A:C2	2.99	0.49
32:E5:130:PRO:C	32:E5:132:TYR:N	2.63	0.49
33:BA:1317:C:OP2	46:BN:28:LYS:NZ	2.42	0.49
23:EW:30:VAL:O	23:EW:30:VAL:HG22	2.12	0.49
1:GA:898:C:H2'	1:GA:899:A:O4'	2.12	0.49
1:CA:2478:A:OP2	31:C4:2:LYS:NZ	2.42	0.49
33:HA:144:G:H2'	33:HA:145:G:O4'	2.12	0.49
42:FJ:80:THR:O	42:FJ:83:THR:N	2.42	0.49
9:AI:19:PRO:HG2	9:AI:24:GLY:H	1.76	0.49
18:ER:42:ALA:HA	18:ER:46:GLU:HB2	1.94	0.49
41:DI:84:THR:HG21	41:DI:103:PHE:HB3	1.94	0.49
9:CI:55:PRO:O	9:CI:71:LYS:HG3	2.12	0.49
7:AG:168:VAL:HG23	7:AG:168:VAL:O	2.12	0.49
4:GD:102:ALA:HA	4:GD:180:VAL:HG11	1.93	0.49
1:GA:2312:U:O2	6:GF:36:ASN:ND2	2.41	0.49
12:AL:81:ASP:O	12:AL:83:ALA:N	2.38	0.49
36:FD:9:LEU:HD12	36:FD:32:CYS:SG	2.52	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2811:G:P	4:GD:62:LYS:HG2	2.52	0.49
43:HK:98:ARG:NH1	53:HU:15:ALA:HB3	2.27	0.49
9:EI:24:GLY:O	9:EI:27:LEU:HG	2.12	0.49
38:DF:38:ARG:HB3	38:DF:63:ASN:HB2	1.93	0.49
34:BB:49:PHE:HA	34:BB:52:ALA:HB3	1.93	0.49
24:GX:69:GLU:O	24:GX:70:LEU:HB2	2.11	0.49
54:BV:119:VAL:HB	54:BV:161:ARG:HD2	1.94	0.49
33:HA:158:G:H2'	33:HA:159:G:H5'	1.94	0.49
54:BV:584:HIS:HB2	54:BV:587:ASP:HB2	1.94	0.49
35:HC:97:VAL:HB	35:HC:98:PRO:HD2	1.94	0.49
1:GA:545:U:H2'	1:GA:546:U:O3'	2.12	0.49
1:CA:335:C:O2	21:CU:67:SER:OG	2.28	0.49
40:HH:29:SER:HB3	40:HH:57:PRO:HB2	1.94	0.49
33:DA:158:G:H2'	33:DA:159:G:C5'	2.42	0.49
20:CT:16:VAL:O	20:CT:17:SER:OG	2.28	0.49
10:AJ:25:LEU:HB2	10:AJ:62:VAL:HG21	1.94	0.49
30:A3:23:HIS:ND1	30:A3:24:LYS:O	2.38	0.49
1:GA:76:C:OP1	25:GY:48:ARG:NH1	2.45	0.49
1:GA:301:G:H1'	1:GA:302:C:C6	2.47	0.49
15:EO:53:THR:HB	15:EO:65:THR:CG2	2.42	0.49
1:GA:1310:G:O6	1:GA:1311:G:N2	2.45	0.49
1:GA:478:A:N1	1:GA:500:G:H4'	2.27	0.49
54:BV:345:SER:N	54:BV:375:LYS:O	2.36	0.49
1:EA:2511:U:O2'	4:ED:143:PRO:O	2.24	0.49
6:EF:128:SER:HA	6:EF:154:THR:HA	1.94	0.49
35:DC:47:LEU:HB3	35:DC:50:ALA:HB3	1.93	0.49
10:EJ:38:GLY:O	10:EJ:43:GLU:HB2	2.12	0.49
17:CQ:91:ARG:HD3	18:CR:11:GLN:HB2	1.94	0.49
17:AQ:91:ARG:HD3	18:AR:11:GLN:HB2	1.94	0.49
23:EW:37:VAL:HG13	23:EW:56:HIS:HB2	1.94	0.49
16:CP:50:ARG:CD	16:CP:57:ALA:H	2.25	0.49
10:CJ:41:LYS:C	10:CJ:43:GLU:H	2.15	0.49
9:GI:25:PRO:HB2	54:HV:646:GLU:C	2.32	0.49
33:FA:1492:A:H2'	33:FA:1493:A:H5''	1.93	0.49
34:HB:20:ARG:NH2	34:HB:36:LYS:HD2	2.27	0.49
37:BE:104:GLY:HA3	37:BE:122:ASN:HA	1.92	0.49
34:HB:30:ILE:HG23	34:HB:32:GLY:H	1.77	0.49
19:CS:71:VAL:O	19:CS:71:VAL:HG23	2.13	0.49
33:BA:1144:G:N1	33:BA:1145:A:C2	2.80	0.49
33:HA:746:A:C6	33:HA:747:A:N6	2.80	0.49
33:BA:913:A:H4'	33:BA:914:A:O5'	2.12	0.49
36:FD:72:PHE:CE2	36:FD:200:ILE:HD11	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GC:93:VAL:HG22	3:GC:115:ILE:HD12	1.93	0.49
33:DA:451:A:H4'	33:DA:452:A:O5'	2.12	0.49
10:CJ:64:VAL:CG1	10:CJ:68:LYS:HB2	2.41	0.49
34:BB:49:PHE:CD1	34:BB:49:PHE:C	2.86	0.49
1:EA:1590:A:H2'	1:EA:1591:A:H8	1.78	0.49
1:GA:1256:G:O2'	5:GE:77:ILE:HD11	2.11	0.49
13:AM:50:ARG:HA	13:AM:53:MET:HE2	1.92	0.49
52:DT:4:ILE:HG22	52:DT:4:ILE:O	2.13	0.49
1:AA:1262:A:OP2	19:AS:99:ARG:NH2	2.45	0.49
1:GA:2785:C:O3'	4:GD:70:LYS:NZ	2.44	0.49
1:AA:2661:G:H5'	54:BV:19:ILE:HG13	1.94	0.49
33:DA:972:C:P	42:DJ:59:LYS:HD3	2.52	0.49
33:DA:1509:C:H2'	33:DA:1510:C:H6	1.77	0.49
1:CA:616:A:H4'	5:CE:101:TYR:CE2	2.47	0.49
1:AA:742:A:H2'	1:AA:743:A:C8	2.48	0.49
25:EY:18:LEU:O	25:EY:22:LEU:HB2	2.11	0.49
1:EA:225:C:H2'	1:EA:226:A:O4'	2.11	0.49
35:DC:83:ASP:O	35:DC:86:LYS:HG2	2.12	0.49
33:HA:1413:A:C2	33:HA:1488:G:C2	3.00	0.49
1:AA:2793:C:H2'	1:AA:2794:C:C6	2.47	0.49
1:AA:857:G:H2'	1:AA:858:G:O4'	2.13	0.49
33:FA:1233:G:H2'	33:FA:1234:C:C6	2.47	0.49
1:AA:1031:G:H4'	31:A4:6:SER:HB2	1.93	0.49
10:AJ:88:THR:HG22	10:AJ:91:GLU:CD	2.32	0.49
1:EA:265:A:H4'	1:EA:266:G:OP1	2.11	0.49
1:GA:415:A:O2'	1:GA:1866:A:OP1	2.30	0.49
34:HB:49:PHE:C	34:HB:49:PHE:CD1	2.84	0.49
1:CA:1647:U:P	1:CA:1647:U:H3'	2.52	0.49
20:GT:61:LEU:HD12	20:GT:61:LEU:C	2.32	0.49
1:CA:590:A:H2'	1:CA:591:U:C6	2.46	0.49
33:BA:1142:G:C2	33:BA:1143:G:H1'	2.47	0.49
1:AA:11:C:C2'	1:AA:12:U:H5'	2.42	0.49
32:E5:73:LYS:CB	32:E5:117:LEU:HD21	2.42	0.49
1:AA:2273:A:H2'	1:AA:2274:A:C8	2.48	0.49
1:CA:2884:U:C5	27:C0:49:ARG:HG2	2.47	0.49
1:EA:248:G:H5'	1:EA:250:G:N7	2.27	0.49
10:CJ:81:ILE:CG1	10:CJ:82:GLY:N	2.75	0.49
35:HC:106:VAL:HG23	35:HC:106:VAL:O	2.13	0.49
51:FS:3:ARG:HH12	51:FS:68:GLY:CA	2.26	0.49
9:CI:71:LYS:HD2	9:CI:71:LYS:N	2.26	0.49
44:BL:25:GLU:HB2	44:BL:27:CYS:SG	2.52	0.49
42:DJ:15:HIS:HB3	42:DJ:70:HIS:CE1	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:572:A:C2	1:AA:2033:A:C2	3.00	0.49
1:CA:1737:G:C4	1:CA:1738:G:N2	2.81	0.49
17:GQ:4:LYS:HD2	17:GQ:7:VAL:HG12	1.94	0.49
33:HA:393:A:OP2	48:HP:12:LYS:HD2	2.12	0.49
5:AE:40:ARG:HH11	5:AE:40:ARG:CG	2.25	0.49
54:FV:556:GLY:HA2	54:FV:594:LYS:HG2	1.93	0.49
49:BQ:59:VAL:CG1	49:BQ:75:LEU:HD23	2.42	0.49
1:CA:729:G:C6	3:CC:206:LYS:HB2	2.47	0.49
36:FD:4:TYR:CZ	36:FD:11:LEU:HD11	2.47	0.49
7:GG:104:LEU:HB2	7:GG:112:VAL:HG21	1.94	0.49
33:FA:56:U:H2'	33:FA:57:G:C8	2.46	0.49
13:GM:71:LYS:HB3	13:GM:93:VAL:O	2.11	0.49
1:GA:2639:A:C2	1:GA:2778:A:C8	3.00	0.49
45:BM:8:ASN:OD1	45:BM:9:ILE:N	2.45	0.49
1:CA:2740:A:H2'	1:CA:2741:A:C8	2.48	0.49
24:EX:34:SER:HA	24:EX:49:ARG:HA	1.94	0.49
5:AE:160:ALA:O	5:AE:161:ALA:HB3	2.12	0.49
1:CA:1729:U:H5'	1:CA:1730:C:O5'	2.13	0.49
1:CA:1458:U:H4'	1:CA:1459:G:O5'	2.12	0.49
37:DE:104:GLY:CA	37:DE:122:ASN:HA	2.43	0.49
1:AA:1684:G:H2'	1:AA:1685:C:C6	2.47	0.49
33:BA:114:U:O2'	33:BA:115:G:H5'	2.12	0.49
54:BV:105:VAL:O	54:BV:337:ARG:NH1	2.45	0.49
7:EG:116:LEU:HD23	7:EG:120:ILE:HG22	1.94	0.49
7:GG:8:VAL:CG1	7:GG:49:LEU:H	2.25	0.49
41:DI:50:GLN:OE1	41:DI:80:ARG:NH1	2.44	0.49
22:EV:72:VAL:HG12	22:EV:93:ARG:HA	1.93	0.49
48:FP:43:ALA:HB1	48:FP:46:LYS:HD3	1.95	0.49
8:AH:14:SER:O	8:AH:16:GLY:N	2.44	0.49
1:EA:1186:G:O3'	59:EA:3573:HOH:O	2.19	0.49
37:BE:134:ILE:HD12	37:BE:134:ILE:H	1.77	0.49
10:EJ:45:THR:O	10:EJ:45:THR:HG23	2.13	0.49
1:EA:996:A:H4'	17:EQ:91:ARG:CD	2.42	0.49
1:EA:783:A:C8	1:EA:784:G:H4'	2.47	0.49
1:AA:1188:U:H2'	1:AA:1189:A:H8	1.77	0.49
36:BD:95:GLU:OE2	36:BD:104:ARG:NE	2.39	0.49
23:CW:17:ALA:O	23:CW:18:LYS:CB	2.60	0.49
16:AP:50:ARG:HD3	16:AP:51:ASN:H	1.76	0.49
1:GA:2336:A:H61	23:GW:40:ARG:CB	2.25	0.49
6:AF:169:LEU:O	6:AF:174:PHE:HB3	2.12	0.49
1:CA:792:A:C6	1:CA:2440:C:C6	3.00	0.49
1:EA:2143:C:H5''	1:EA:2146:C:H42	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:EP:50:ARG:HG2	16:EP:56:SER:HB3	1.93	0.49
9:GI:82:ALA:HB1	9:GI:108:ILE:CD1	2.42	0.49
37:BE:104:GLY:HA2	37:BE:122:ASN:HA	1.94	0.49
6:AF:98:PHE:HA	6:AF:101:ARG:CZ	2.42	0.49
19:ES:18:ARG:C	19:ES:20:VAL:H	2.15	0.49
33:FA:1302:C:O2	45:FM:17:ILE:CD1	2.60	0.49
1:AA:1993:U:H4'	4:AD:133:THR:CG2	2.42	0.49
33:BA:591:U:H2'	33:BA:592:G:C8	2.47	0.49
1:CA:1219:U:C2	1:CA:1220:G:C8	3.01	0.49
7:EG:79:THR:OG1	7:EG:80:GLU:N	2.41	0.49
20:AT:69:ARG:CG	20:AT:70:HIS:H	2.25	0.49
33:BA:510:A:OP2	59:BA:1722:HOH:O	2.19	0.49
33:DA:292:G:N2	33:DA:309:A:C4	2.80	0.49
5:GE:138:LEU:HB3	5:GE:143:LEU:O	2.12	0.49
45:FM:20:THR:HA	45:FM:25:VAL:HG23	1.93	0.49
1:CA:1526:C:H2'	1:CA:1527:G:O4'	2.12	0.49
9:EI:98:GLY:HA3	9:EI:137:LEU:HD22	1.94	0.49
15:CO:111:ARG:NH2	15:CO:117:PHE:O	2.45	0.49
35:DC:186:THR:HG22	35:DC:187:SER:N	2.26	0.49
1:CA:2204:G:H4'	3:CC:149:LYS:HG3	1.94	0.49
5:EE:192:ALA:O	5:EE:195:GLN:N	2.45	0.49
19:AS:4:ILE:HG12	19:AS:5:ALA:N	2.28	0.49
54:DV:309:ARG:NE	54:DV:316:PRO:HG2	2.27	0.49
54:FV:382:ILE:HD12	54:FV:382:ILE:O	2.13	0.49
33:HA:934:C:OP1	59:HA:1766:HOH:O	2.20	0.49
33:DA:22:G:OP1	59:DA:1807:HOH:O	2.20	0.49
6:CF:132:ARG:O	6:CF:133:GLU:HB3	2.12	0.49
6:CF:134:GLN:O	6:CF:136:ILE:N	2.38	0.49
7:GG:16:VAL:HA	7:GG:24:THR:O	2.12	0.49
7:AG:10:VAL:HG23	7:AG:10:VAL:O	2.12	0.49
1:AA:1405:U:H2'	1:AA:1406:U:C6	2.47	0.49
1:AA:2393:U:H5'	12:AL:60:ARG:O	2.13	0.49
1:EA:532:A:N7	1:EA:2021:C:O2'	2.42	0.49
33:DA:731:G:H5'	33:DA:766:A:H4'	1.94	0.49
1:EA:2013:A:N3	19:ES:88:ARG:NH1	2.61	0.49
6:EF:43:ILE:HG21	6:EF:78:ILE:HG22	1.94	0.49
1:AA:1853:A:N1	1:AA:2087:G:H1'	2.27	0.49
33:DA:745:G:O3'	33:DA:836:G:N2	2.44	0.49
1:GA:28:A:H1'	1:GA:513:A:C2	2.47	0.49
32:A5:35:VAL:HA	32:A5:38:MET:SD	2.52	0.49
6:EF:66:ILE:H	6:EF:66:ILE:HD13	1.78	0.49
1:GA:296:U:O3'	21:GU:91:LYS:NZ	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:258:G:H1'	12:AL:104:GLN:NE2	2.27	0.49
1:EA:1568:G:OP1	3:EC:62:ARG:NH1	2.45	0.49
32:A5:59:LEU:HD23	32:A5:62:ARG:HE	1.77	0.49
54:FV:222:LEU:O	54:FV:226:ALA:N	2.42	0.49
37:FE:114:VAL:HG11	37:FE:137:VAL:HG23	1.94	0.49
1:AA:2270:A:OP2	59:AA:3513:HOH:O	2.19	0.49
23:AW:38:ARG:CD	23:AW:38:ARG:N	2.75	0.49
53:DU:40:LYS:N	53:DU:41:PRO:CD	2.74	0.49
6:AF:9:ASP:O	6:AF:10:GLU:HG3	2.12	0.49
33:DA:1296:C:H4'	33:DA:1302:C:C4	2.48	0.49
1:EA:2148:G:P	1:EA:2149:U:H1'	2.51	0.49
16:AP:19:PHE:O	16:AP:20:ARG:CB	2.60	0.49
33:FA:80:A:C2	33:FA:90:C:N3	2.80	0.49
3:EC:109:LEU:HD23	3:EC:110:LYS:N	2.27	0.49
1:CA:1725:U:H2'	1:CA:1726:C:C5	2.48	0.49
6:EF:59:ILE:HD12	6:EF:140:ILE:HD11	1.94	0.49
3:CC:140:VAL:CG1	3:CC:189:ALA:HB1	2.42	0.49
18:CR:61:ALA:HB2	18:CR:98:ILE:HA	1.94	0.49
34:FB:49:PHE:HB2	34:FB:212:TYR:OH	2.12	0.49
4:CD:33:ARG:NH2	4:CD:74:GLU:O	2.46	0.49
17:EQ:29:ARG:CG	17:EQ:29:ARG:HH11	2.25	0.49
36:FD:29:ASP:OD1	36:FD:30:THR:N	2.39	0.49
41:HI:11:ARG:HB2	41:HI:15:SER:O	2.12	0.49
9:EI:23:VAL:HG23	9:EI:24:GLY:H	1.78	0.49
1:AA:2748:A:H1'	7:AG:66:THR:CG2	2.42	0.49
33:BA:843:U:N3	33:BA:844:G:N7	2.60	0.49
1:EA:545:U:H6	1:EA:545:U:O5'	1.95	0.49
37:HE:95:PHE:CZ	37:HE:97:GLN:HG2	2.48	0.49
1:AA:2070:A:O2'	1:AA:2071:A:H5'	2.13	0.49
1:GA:479:A:H4'	1:GA:480:A:OP1	2.11	0.49
1:GA:635:C:O2'	1:GA:639:U:OP1	2.28	0.49
1:EA:45:G:H5''	1:EA:46:G:OP1	2.13	0.49
33:BA:1335:U:H5''	33:BA:1337:G:N2	2.28	0.49
1:EA:2771:C:O2'	4:ED:173:GLN:OE1	2.29	0.49
1:GA:882:G:C2	1:GA:895:U:H1'	2.47	0.49
38:HF:66:ALA:HB1	38:HF:67:PRO:HD2	1.92	0.49
1:EA:2064:C:H2'	1:EA:2065:C:C6	2.47	0.49
1:AA:1287:A:N7	14:AN:105:GLY:HA3	2.27	0.49
39:FG:145:ALA:C	39:FG:147:ALA:H	2.15	0.49
33:FA:731:G:H5'	33:FA:766:A:H4'	1.93	0.49
33:DA:1248:A:H2'	33:DA:1249:C:C6	2.48	0.49
7:EG:155:PRO:O	7:EG:170:THR:HA	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:FB:13:VAL:HG23	34:FB:207:ARG:HD2	1.93	0.49
23:EW:67:LYS:O	23:EW:68:PHE:HB2	2.12	0.49
1:EA:927:A:O2'	26:EZ:38:GLU:OE1	2.28	0.49
4:ED:148:GLN:HB2	4:ED:152:PRO:HG2	1.94	0.49
1:CA:2795:C:H2'	1:CA:2796:U:C6	2.48	0.49
1:GA:2355:G:H4'	23:GW:20:LEU:CD1	2.42	0.49
36:HD:48:LEU:HD21	36:HD:53:VAL:N	2.27	0.49
3:EC:251:THR:HG22	3:EC:252:LYS:H	1.78	0.49
33:FA:530:G:H3'	33:FA:530:G:N3	2.27	0.49
36:HD:62:ARG:HH21	36:HD:68:LEU:HA	1.78	0.49
1:GA:1154:G:P	17:GQ:57:ARG:NH1	2.85	0.49
1:EA:1107:G:H5''	32:E5:58:THR:HG23	1.95	0.49
1:AA:996:A:H4'	17:AQ:91:ARG:NE	2.28	0.49
33:HA:1007:U:H2'	33:HA:1008:U:C5'	2.43	0.49
1:AA:1084:A:N6	1:AA:1085:A:N1	2.60	0.49
36:HD:107:PHE:HD2	36:HD:145:ILE:HD11	1.77	0.49
1:CA:2392:A:C8	1:CA:2429:G:C2	3.01	0.49
33:BA:1412:C:H2'	33:BA:1413:A:C8	2.47	0.49
1:CA:573:U:O2'	1:CA:574:A:H3'	2.13	0.49
4:ED:107:VAL:O	4:ED:174:SER:O	2.31	0.49
33:DA:40:C:H2'	33:DA:41:G:C8	2.46	0.49
7:EG:84:LYS:HG2	7:EG:85:LYS:N	2.28	0.49
20:ET:40:LYS:N	20:ET:43:ILE:HG23	2.27	0.49
33:FA:1296:C:O3'	33:FA:1302:C:N4	2.45	0.49
7:CG:84:LYS:HG3	7:CG:132:LEU:O	2.12	0.49
1:EA:443:A:C8	5:EE:40:ARG:HD3	2.47	0.49
33:BA:678:U:H2'	33:BA:679:C:C6	2.47	0.49
5:AE:108:ILE:CD1	12:AL:2:ARG:CZ	2.91	0.49
16:GP:20:ARG:HD2	16:GP:112:ARG:NH1	2.28	0.49
13:CM:1:MET:O	13:CM:2:LEU:CB	2.61	0.49
1:AA:583:G:N2	1:AA:1258:U:C2	2.81	0.49
33:BA:81:A:N6	33:BA:83:C:O2	2.43	0.49
1:AA:1464:G:HO2'	1:AA:1528:A:HO2'	1.50	0.49
1:CA:1206:G:C6	1:CA:1207:C:C4	3.00	0.49
33:FA:8:A:C6	36:FD:206:LYS:HB3	2.48	0.49
34:HB:49:PHE:HB2	34:HB:212:TYR:OH	2.13	0.49
7:AG:10:VAL:HB	7:AG:14:VAL:HG21	1.94	0.49
53:FU:12:PHE:CZ	53:FU:16:LEU:HD12	2.48	0.49
23:CW:46:ALA:HB3	23:CW:79:ILE:O	2.13	0.49
47:HO:9:ALA:HA	47:HO:12:VAL:HG12	1.94	0.49
3:CC:70:LYS:HD2	3:CC:73:ILE:HD13	1.95	0.49
1:CA:1141:U:H4'	1:CA:1142:A:O4'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:HE:74:VAL:HG12	37:HE:76:LEU:HD12	1.94	0.49
54:DV:298:ILE:HG23	54:DV:304:ASP:HA	1.95	0.49
33:FA:1108:G:C5	33:FA:1109:C:C5	3.01	0.49
47:BO:69:TYR:CZ	47:BO:73:LYS:HG3	2.48	0.49
33:HA:1181:G:C2	33:HA:1182:G:N2	2.81	0.49
41:BI:41:ARG:CA	41:BI:45:ARG:HD3	2.42	0.49
3:CC:235:GLU:OE1	59:CC:308:HOH:O	2.20	0.49
9:AI:56:VAL:HG21	9:AI:68:PHE:CE1	2.47	0.49
23:CW:67:LYS:O	23:CW:68:PHE:HB2	2.13	0.49
23:CW:67:LYS:N	23:CW:80:SER:O	2.45	0.49
21:EU:73:ASN:HD22	21:EU:95:PHE:HD2	1.58	0.49
51:BS:44:MET:HA	51:BS:47:LEU:HD12	1.94	0.49
15:CO:79:ALA:O	15:CO:83:LEU:HD22	2.12	0.49
37:BE:154:ALA:O	37:BE:158:GLY:N	2.38	0.49
5:AE:24:ASN:O	5:AE:28:VAL:HG12	2.13	0.49
6:AF:103:ILE:HG21	6:AF:173:ASP:CB	2.42	0.49
33:DA:289:G:C6	33:DA:290:C:N4	2.81	0.49
1:GA:2720:U:H5''	16:GP:52:ARG:HH21	1.77	0.49
54:HV:635:LEU:HD12	54:HV:658:VAL:HG11	1.93	0.49
21:CU:16:LYS:NZ	21:CU:40:LEU:O	2.46	0.49
48:FP:4:ILE:HD12	48:FP:4:ILE:N	2.27	0.49
54:DV:455:GLN:NE2	54:DV:487:GLN:OE1	2.46	0.49
1:CA:1400:U:H2'	1:CA:1401:G:C8	2.48	0.49
3:EC:68:ARG:CD	3:EC:103:ILE:HD11	2.43	0.49
33:HA:537:G:H5''	44:HL:110:ARG:NH1	2.28	0.49
1:GA:2336:A:N6	23:GW:40:ARG:CB	2.75	0.49
33:DA:1033:G:C2'	33:DA:1034:G:C5'	2.90	0.49
23:AW:37:VAL:HG13	23:AW:55:ASP:O	2.13	0.49
1:AA:2311:A:N1	6:AF:43:ILE:HG21	2.27	0.49
1:EA:2346:A:H3'	1:EA:2347:C:C5'	2.43	0.49
33:BA:59:A:C5	33:BA:354:G:C6	3.01	0.49
38:FF:3:HIS:H	38:FF:92:THR:HG23	1.77	0.49
7:EG:104:LEU:HB2	7:EG:112:VAL:CG2	2.43	0.49
33:FA:9:G:OP2	37:FE:126:LYS:NZ	2.41	0.49
44:BL:25:GLU:O	44:BL:26:ALA:C	2.51	0.49
1:AA:163:C:HO2'	1:AA:164:C:C5'	2.25	0.49
20:AT:29:THR:HA	20:AT:86:THR:HA	1.94	0.49
44:BL:29:GLN:HB2	44:BL:82:ILE:O	2.13	0.49
1:CA:1268:A:OP2	59:CA:3379:HOH:O	2.20	0.49
1:AA:2835:A:C2	1:AA:2879:A:C5	3.00	0.49
1:EA:1288:G:C5	1:EA:1327:A:C2	3.01	0.49
49:BQ:12:VAL:CG1	49:BQ:21:ILE:HD11	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:16:VAL:N	3:CC:203:VAL:HG12	2.28	0.49
33:BA:408:A:C2	33:BA:409:U:C2	3.00	0.49
33:FA:1296:C:H4'	33:FA:1302:C:N3	2.27	0.49
5:EE:188:MET:CE	5:EE:196:VAL:HG21	2.42	0.49
48:FP:79:ASN:O	48:FP:80:LYS:CB	2.60	0.49
1:AA:1532:A:H3'	1:AA:1533:C:H6	1.78	0.49
1:AA:1534:U:H3'	1:AA:1536:C:C4	2.48	0.49
16:EP:4:ILE:HG22	16:EP:8:GLU:HG3	1.95	0.49
2:GB:95:U:H2'	2:GB:96:G:C8	2.48	0.49
1:EA:2760:C:C2'	1:EA:2761:A:H5'	2.43	0.49
26:CZ:40:THR:CG2	26:CZ:43:ILE:HG23	2.43	0.49
39:HG:133:THR:HA	39:HG:136:LYS:HB3	1.95	0.49
33:DA:450:G:C5	33:DA:481:G:O6	2.66	0.49
1:AA:247:G:H4'	1:AA:386:G:C5	2.47	0.49
1:GA:2314:A:H2'	1:GA:2315:G:C8	2.48	0.49
35:DC:58:GLU:HG3	35:DC:65:ARG:HB3	1.95	0.49
1:CA:1232:G:C5	1:CA:1233:C:C5	3.01	0.49
39:DG:13:LEU:HD23	39:DG:14:PRO:O	2.12	0.49
1:EA:1857:G:O2'	1:EA:1858:A:OP2	2.29	0.49
31:E4:15:LYS:HB3	31:E4:26:ILE:HD13	1.95	0.49
12:CL:81:ASP:O	12:CL:83:ALA:N	2.44	0.49
4:ED:22:ILE:HG23	4:ED:190:LYS:HD2	1.93	0.49
33:BA:652:U:O2'	33:BA:653:U:OP2	2.23	0.49
41:HI:7:TYR:CG	41:HI:8:GLY:N	2.81	0.49
2:GB:51:G:H5''	15:GO:64:TYR:CD2	2.48	0.49
33:FA:960:U:O2'	33:FA:1223:C:H4'	2.13	0.49
10:GJ:76:HIS:CE1	10:GJ:85:LYS:HB2	2.47	0.49
23:AW:26:GLY:O	23:AW:27:GLY:C	2.51	0.49
5:CE:146:VAL:HG12	5:CE:185:LYS:HB2	1.95	0.49
33:FA:134:G:H1'	33:FA:325:A:C5	2.48	0.49
1:EA:1163:G:C2	1:EA:1164:C:C5	3.00	0.49
7:GG:162:ARG:HD3	7:GG:166:GLU:HG2	1.94	0.49
16:CP:13:LYS:HE3	16:CP:76:HIS:HA	1.94	0.49
1:AA:1041:G:H1	1:AA:1114:C:H42	1.61	0.49
33:BA:860:A:H2'	33:BA:861:G:O4'	2.12	0.49
20:ET:34:VAL:O	20:ET:34:VAL:HG23	2.11	0.49
33:DA:975:A:N1	33:DA:1366:C:O2'	2.43	0.49
1:EA:1024:G:H21	1:EA:1144:A:C4'	2.26	0.49
1:GA:1171:G:N2	1:GA:1178:C:N3	2.60	0.49
1:CA:1378:A:O2'	1:CA:1380:G:OP2	2.31	0.49
23:AW:24:ARG:HD2	23:AW:24:ARG:C	2.32	0.49
32:A5:110:ALA:HB1	32:A5:113:PHE:CE1	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1095:U:OP2	59:BA:1860:HOH:O	2.20	0.49
54:DV:584:HIS:HB2	54:DV:587:ASP:HB2	1.94	0.49
16:CP:35:SER:OG	33:DA:345:C:OP1	2.19	0.49
9:GI:18:ASN:ND2	9:GI:37:PHE:O	2.43	0.49
43:BK:82:LEU:O	43:BK:108:THR:HB	2.12	0.49
2:CB:86:G:H2'	2:CB:87:U:H5''	1.94	0.49
1:CA:2478:A:P	31:C4:2:LYS:HZ1	2.35	0.49
4:ED:106:LYS:HB3	4:ED:206:ALA:CB	2.43	0.49
1:GA:527:C:H4'	1:GA:528:A:O5'	2.12	0.49
4:AD:110:THR:HG23	4:AD:171:THR:HG22	1.95	0.49
5:CE:148:ILE:HA	5:CE:187:VAL:HB	1.94	0.49
33:BA:746:A:C6	33:BA:747:A:N6	2.80	0.49
33:BA:1101:A:H61	34:BB:101:THR:HG21	1.78	0.49
1:CA:84:A:P	21:CU:5:ARG:NH2	2.86	0.49
39:FG:4:ARG:O	39:FG:6:VAL:N	2.45	0.49
1:CA:481:G:C4	1:CA:507:A:C2	3.00	0.49
20:CT:24:MET:HG3	20:CT:29:THR:CG2	2.43	0.49
1:GA:1085:A:H1'	1:GA:1105:U:H1'	1.94	0.49
21:GU:95:PHE:CD1	21:GU:95:PHE:N	2.79	0.49
49:BQ:47:HIS:HB2	49:BQ:71:LYS:HE2	1.94	0.49
42:FJ:7:ARG:HD2	42:FJ:73:LEU:HD11	1.94	0.49
33:BA:655:A:C2	33:BA:754:C:N4	2.81	0.49
33:DA:562:U:O2	44:DL:13:ALA:N	2.45	0.49
3:CC:24:HIS:HB2	3:CC:79:ARG:HG3	1.95	0.49
37:BE:87:GLY:O	37:BE:94:VAL:HG12	2.13	0.49
10:GJ:73:VAL:HB	10:GJ:75:TYR:CE2	2.48	0.49
1:CA:1088:A:O2'	1:CA:1089:A:P	2.70	0.49
16:AP:102:ARG:O	16:AP:103:THR:HG22	2.12	0.49
1:AA:813:U:H2'	1:AA:814:C:C6	2.48	0.49
1:GA:158:U:C2'	1:GA:159:G:H5'	2.43	0.49
1:CA:878:A:N6	1:CA:899:A:O2'	2.46	0.49
5:GE:16:GLU:O	5:GE:20:GLY:N	2.35	0.49
1:GA:1028:A:N6	1:GA:1125:G:H2'	2.27	0.49
33:FA:1129:C:O2'	33:FA:1139:G:N7	2.30	0.49
12:CL:18:ARG:O	12:CL:19:LEU:HB3	2.13	0.49
7:CG:68:ARG:NH1	7:CG:72:ASN:HD22	2.11	0.49
33:FA:414:A:H2'	33:FA:415:A:O4'	2.13	0.49
53:HU:42:THR:O	53:HU:46:LYS:N	2.45	0.49
16:EP:58:PHE:CD1	16:EP:75:THR:HG22	2.48	0.49
33:FA:489:C:H5''	36:FD:128:ARG:HH22	1.77	0.49
33:BA:865:A:H2'	33:BA:866:C:C6	2.47	0.49
1:AA:1231:U:H2'	1:AA:1232:G:H8	1.78	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:FN:73:PHE:CZ	46:FN:78:GLY:HA2	2.46	0.49
1:AA:1122:G:H2'	1:AA:1122:G:N3	2.28	0.49
36:DD:161:LEU:H	36:DD:161:LEU:HD22	1.77	0.49
34:HB:134:LEU:C	34:HB:136:ARG:H	2.16	0.49
17:CQ:91:ARG:HH11	18:CR:11:GLN:H	1.60	0.49
1:AA:2885:G:H2'	1:AA:2886:A:O4'	2.12	0.49
41:DI:57:MET:O	41:DI:59:GLU:N	2.44	0.49
23:EW:18:LYS:N	23:EW:36:ILE:HB	2.28	0.49
33:HA:1144:G:N1	33:HA:1145:A:C2	2.81	0.49
33:DA:1142:G:C2	33:DA:1143:G:H1'	2.47	0.49
13:EM:51:ARG:HH11	13:EM:51:ARG:CG	2.26	0.49
1:CA:1913:A:N3	54:DV:591:LEU:CD1	2.76	0.49
23:AW:9:THR:HG23	23:AW:10:ARG:CD	2.43	0.49
33:BA:803:G:C5	33:BA:804:U:C4	3.01	0.49
6:AF:49:LEU:HA	6:AF:52:ALA:HB3	1.95	0.49
1:AA:2724:U:OP1	4:AD:116:LYS:NZ	2.42	0.49
46:FN:53:ARG:C	46:FN:55:SER:H	2.16	0.49
1:CA:2745:C:N4	1:CA:2746:U:O4	2.46	0.49
45:HM:8:ASN:OD1	45:HM:9:ILE:N	2.43	0.49
37:HE:41:ASP:OD1	37:HE:43:ASN:N	2.38	0.49
34:DB:163:ILE:HG12	34:DB:164:ASP:N	2.28	0.49
54:FV:418:ILE:HG12	54:FV:483:VAL:CG1	2.43	0.49
33:DA:1049:U:C2	33:DA:1201:A:H2	2.31	0.49
1:CA:545:U:N3	1:CA:547:A:H4'	2.28	0.49
1:AA:1534:U:O2	1:AA:1536:C:N3	2.46	0.49
1:EA:335:C:H5''	21:EU:81:ARG:HD3	1.94	0.49
1:EA:272:A:O2'	1:EA:273:G:P	2.71	0.49
7:CG:175:LYS:O	7:CG:176:LYS:CB	2.60	0.49
14:CN:55:ALA:O	14:CN:57:THR:N	2.46	0.49
24:EX:36:ARG:CG	24:EX:47:THR:HG22	2.43	0.49
16:AP:4:ILE:HG22	16:AP:5:LYS:H	1.77	0.49
24:AX:77:TYR:CD1	24:AX:77:TYR:C	2.87	0.49
33:DA:1507:A:C2	33:DA:1508:A:C5	3.01	0.49
19:AS:4:ILE:HB	19:AS:106:VAL:HG22	1.94	0.49
41:BI:30:ILE:HG12	41:BI:38:TYR:CD2	2.48	0.49
1:AA:419:U:H2'	1:AA:420:C:C6	2.47	0.49
1:EA:2885:G:H2'	1:EA:2886:A:O4'	2.13	0.49
1:GA:742:A:H2'	1:GA:743:A:C8	2.48	0.49
33:BA:1273:C:H2'	33:BA:1274:A:O4'	2.13	0.49
33:FA:673:A:H1'	50:FR:64:TYR:HD2	1.77	0.49
40:FH:90:ASP:OD1	40:FH:90:ASP:N	2.34	0.49
3:EC:116:GLN:N	3:EC:127:ASN:OD1	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2358:A:C4	1:EA:2359:C:C6	3.01	0.49
6:AF:127:TYR:HB3	6:AF:155:ILE:HB	1.95	0.49
27:A0:54:ILE:HG22	27:A0:56:LYS:H	1.77	0.49
7:GG:163:TYR:O	7:GG:164:ALA:CB	2.60	0.49
40:DH:3:MET:CE	40:DH:6:PRO:HA	2.43	0.49
44:FL:83:ARG:HB2	44:FL:98:VAL:HG23	1.95	0.49
1:CA:2415:G:H4'	12:CL:65:GLY:O	2.13	0.49
45:DM:10:PRO:O	45:DM:11:ASP:HB2	2.13	0.49
33:DA:560:A:H5'	33:DA:566:G:N2	2.28	0.49
15:CO:36:TYR:N	15:CO:36:TYR:CD1	2.81	0.49
38:DF:55:HIS:N	38:DF:55:HIS:ND1	2.61	0.49
9:GI:20:SER:HB3	9:GI:21:PRO:HD3	1.94	0.49
10:EJ:44:TYR:O	10:EJ:44:TYR:HD1	1.96	0.49
23:EW:17:ALA:O	23:EW:18:LYS:CB	2.60	0.49
23:EW:37:VAL:CA	23:EW:39:GLN:HG2	2.43	0.49
10:CJ:43:GLU:O	10:CJ:44:TYR:C	2.51	0.49
1:GA:1926:U:C6	1:GA:1926:U:H3'	2.48	0.49
1:GA:1095:A:N6	54:HV:628:THR:HA	2.28	0.49
1:AA:449:A:C6	1:AA:450:G:C5	3.01	0.49
6:CF:41:GLU:HB2	6:CF:48:LEU:HD23	1.95	0.49
42:HJ:6:ILE:HG23	42:HJ:100:ILE:HG21	1.94	0.49
1:CA:2109:U:HO2'	1:CA:2180:U:C4'	2.26	0.49
6:GF:137:PHE:CD1	6:GF:138:PRO:HD2	2.48	0.49
6:GF:105:ILE:HG12	6:GF:138:PRO:CG	2.43	0.49
38:FF:42:TRP:HB2	38:FF:59:TYR:HB2	1.95	0.49
4:GD:97:SER:C	4:GD:99:GLU:HG2	2.33	0.49
34:FB:213:LEU:O	34:FB:216:VAL:HG22	2.13	0.49
2:CB:28:C:OP1	15:CO:31:THR:HG21	2.13	0.49
36:FD:197:GLU:HA	36:FD:200:ILE:HG22	1.95	0.49
9:EI:59:THR:O	9:EI:66:PHE:HB2	2.12	0.49
44:HL:43:LYS:HG2	44:HL:44:LYS:HG3	1.95	0.49
12:GL:132:ARG:HG3	12:GL:142:ILE:HD12	1.95	0.49
5:AE:108:ILE:HG12	5:AE:181:ILE:HG12	1.93	0.49
2:AB:3:C:H2'	2:AB:4:C:H6	1.78	0.49
53:HU:4:ILE:N	53:HU:19:PHE:CE1	2.81	0.49
1:AA:1197:G:H2'	1:AA:1198:U:H6	1.78	0.49
7:CG:27:GLY:HA3	7:CG:78:VAL:HB	1.95	0.49
9:AI:17:ALA:HB2	9:AI:41:PHE:CE2	2.47	0.49
7:GG:162:ARG:HB3	7:GG:166:GLU:HG2	1.94	0.49
35:HC:77:ILE:HA	35:HC:84:VAL:HG23	1.94	0.49
1:AA:804:A:H5''	1:AA:805:G:OP1	2.13	0.49
20:CT:32:LEU:H	20:CT:83:ALA:HB3	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:FK:34:ILE:HD11	43:FK:70:CYS:SG	2.52	0.49
33:FA:471:U:H2'	33:FA:472:U:H6	1.78	0.49
33:DA:624:C:H4'	48:DP:10:GLY:O	2.13	0.49
42:BJ:14:ASP:HB3	42:BJ:17:LEU:HB3	1.95	0.49
4:GD:159:LYS:HD2	4:GD:160:LYS:N	2.27	0.49
36:DD:105:MET:SD	36:DD:143:VAL:HG13	2.53	0.49
1:CA:2557:G:H2'	1:CA:2558:C:C6	2.48	0.49
9:AI:104:GLN:HG2	9:AI:108:ILE:HD12	1.95	0.49
1:EA:1874:C:H2'	1:EA:1875:G:O4'	2.13	0.49
35:HC:23:PHE:CD1	35:HC:24:ALA:N	2.81	0.49
5:EE:51:GLU:OE2	5:EE:88:ARG:NH1	2.40	0.49
12:GL:46:VAL:CG1	12:GL:50:PHE:HB3	2.43	0.49
36:DD:98:LEU:HD23	36:DD:102:VAL:HG23	1.95	0.49
1:EA:319:G:C4	1:EA:333:G:N2	2.81	0.49
6:CF:137:PHE:HB2	6:CF:140:ILE:HD12	1.94	0.49
1:EA:198:C:OP2	59:EA:3755:HOH:O	2.20	0.49
20:GT:29:THR:HB	20:GT:86:THR:HG22	1.95	0.49
5:EE:70:SER:OG	5:EE:70:SER:O	2.30	0.49
33:BA:1134:G:N2	33:BA:1135:U:O2	2.46	0.49
1:EA:1799:G:O2'	3:EC:179:GLU:OE2	2.20	0.49
2:AB:90:C:H5'	13:AM:18:ARG:HG2	1.94	0.49
1:CA:1405:U:H2'	1:CA:1406:U:C6	2.48	0.49
32:E5:117:LEU:HD23	32:E5:121:SER:N	2.27	0.48
1:CA:945:A:C4	1:CA:2448:A:C2	3.01	0.48
6:AF:24:VAL:O	6:AF:27:VAL:HG12	2.13	0.48
1:AA:1328:A:H2'	1:AA:1330:C:C4	2.48	0.48
6:GF:99:PHE:CZ	6:GF:172:PHE:HD2	2.31	0.48
33:DA:324:G:N2	33:DA:326:G:H3'	2.28	0.48
42:DJ:7:ARG:HB3	42:DJ:101:SER:HB2	1.94	0.48
1:GA:2779:U:C6	1:GA:2781:A:C2	3.01	0.48
4:ED:73:VAL:HG23	4:ED:74:GLU:H	1.77	0.48
7:CG:96:ALA:O	7:CG:97:VAL:HB	2.12	0.48
4:CD:107:VAL:CG2	4:CD:203:VAL:HG23	2.42	0.48
1:CA:1079:C:C2'	1:CA:1080:A:H5'	2.42	0.48
7:GG:22:VAL:HG12	7:GG:36:LEU:CD1	2.43	0.48
7:AG:84:LYS:CG	7:AG:85:LYS:N	2.75	0.48
15:AO:106:LEU:HG	15:AO:107:ALA:N	2.27	0.48
9:AI:57:VAL:HG23	9:AI:71:LYS:HE3	1.95	0.48
39:FG:146:GLU:HA	39:FG:149:LYS:HB2	1.94	0.48
9:AI:37:PHE:CD1	9:AI:68:PHE:HE2	2.31	0.48
1:CA:485:C:C4	1:CA:496:G:N1	2.80	0.48
44:DL:3:THR:HG22	44:DL:5:ASN:N	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AY:61:ALA:O	25:AY:63:ALA:N	2.41	0.48
1:GA:1353:A:C8	1:GA:1378:A:N6	2.81	0.48
43:FK:99:ALA:HA	43:FK:102:ALA:HB3	1.94	0.48
10:CJ:73:VAL:HG23	10:CJ:74:TYR:H	1.77	0.48
11:AK:39:ILE:HG13	11:AK:41:ILE:CD1	2.43	0.48
1:CA:812:C:H4'	17:CQ:12:ARG:HH22	1.79	0.48
43:HK:93:ARG:HH22	53:HU:20:LYS:CD	2.26	0.48
1:GA:762:U:H4'	1:GA:763:G:O5'	2.13	0.48
1:AA:1206:G:C6	1:AA:1207:C:C4	3.01	0.48
33:BA:1477:U:H2'	33:BA:1478:U:C6	2.48	0.48
34:FB:209:VAL:HG23	34:FB:210:THR:H	1.78	0.48
21:EU:82:VAL:HG12	21:EU:83:GLY:N	2.27	0.48
1:CA:730:A:OP2	59:CA:3686:HOH:O	2.20	0.48
1:CA:2585:U:O2'	1:CA:2586:U:P	2.71	0.48
1:EA:613:A:C8	1:EA:616:A:N1	2.80	0.48
1:EA:435:C:H2'	1:EA:436:C:H5'	1.95	0.48
33:HA:1237:C:O2	33:HA:1334:G:O2'	2.30	0.48
35:FC:123:GLN:HB3	35:FC:128:VAL:CG1	2.43	0.48
1:EA:1360:G:O6	1:EA:1372:U:C2	2.66	0.48
17:GQ:63:ARG:HH22	17:GQ:96:ASP:N	2.11	0.48
3:CC:68:ARG:NE	3:CC:103:ILE:HD11	2.28	0.48
33:DA:932:C:H5'	39:DG:4:ARG:HE	1.78	0.48
1:EA:1509:A:C2	1:EA:1510:G:C4	3.02	0.48
1:EA:858:G:C4	1:EA:2268:A:C2	3.01	0.48
10:CJ:43:GLU:O	10:CJ:45:THR:HG22	2.13	0.48
23:GW:37:VAL:HG22	23:GW:55:ASP:O	2.13	0.48
1:AA:2330:G:H1'	23:AW:38:ARG:HB3	1.95	0.48
16:CP:33:GLU:OE1	33:DA:345:C:H4'	2.12	0.48
43:BK:107:ILE:HG21	53:BU:12:PHE:CD1	2.48	0.48
3:GC:254:LYS:O	3:GC:256:THR:N	2.46	0.48
1:CA:1187:G:H5''	18:CR:83:TYR:CZ	2.48	0.48
20:CT:1:MET:HG2	20:CT:2:ILE:H	1.76	0.48
36:DD:54:GLN:HB3	36:DD:203:LEU:HD13	1.95	0.48
1:CA:1069:A:N7	1:CA:1073:A:N6	2.61	0.48
4:CD:120:GLY:HA2	4:CD:162:ALA:CB	2.43	0.48
36:HD:37:ALA:HA	36:HD:42:GLY:HA3	1.95	0.48
22:GV:2:PHE:HB2	22:GV:61:LEU:HD12	1.94	0.48
4:AD:110:THR:HB	4:AD:202:ILE:CG2	2.42	0.48
9:CI:14:ALA:HB2	9:CI:54:ILE:HD11	1.94	0.48
1:EA:422:A:C2	1:EA:423:A:C4	3.02	0.48
40:BH:64:LYS:HB3	40:BH:71:VAL:HG21	1.95	0.48
1:CA:2024:G:O3'	4:CD:154:LYS:NZ	2.34	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:10:VAL:HG11	11:AK:16:ALA:HB3	1.95	0.48
13:GM:62:LYS:HD3	13:GM:64:TRP:CH2	2.48	0.48
33:DA:495:A:C2	33:DA:496:A:N6	2.81	0.48
1:GA:1258:U:H2'	1:GA:1259:G:H8	1.78	0.48
26:EZ:38:GLU:O	26:EZ:43:ILE:HG12	2.13	0.48
9:AI:41:PHE:HD1	9:AI:68:PHE:CZ	2.30	0.48
43:BK:94:GLU:O	43:BK:97:ILE:HG22	2.13	0.48
1:CA:1124:G:H1'	31:C4:38:GLY:OXT	2.13	0.48
1:GA:1458:U:H4'	1:GA:1459:G:O5'	2.13	0.48
42:DJ:56:HIS:O	42:DJ:57:VAL:HG12	2.12	0.48
1:CA:247:G:N7	1:CA:249:C:C2	2.81	0.48
20:GT:35:ALA:HB3	20:GT:38:ALA:HB2	1.94	0.48
41:FI:120:LYS:O	41:FI:121:ALA:HB3	2.13	0.48
48:HP:4:ILE:HG13	48:HP:21:VAL:CG1	2.43	0.48
1:AA:1151:A:OP1	17:AQ:84:LYS:NZ	2.46	0.48
1:GA:69:C:O2	1:GA:73:A:O2'	2.24	0.48
54:DV:9:ARG:NH1	54:DV:80:GLU:HG3	2.27	0.48
7:AG:108:PHE:HE1	7:AG:151:ARG:NH1	2.11	0.48
54:HV:261:ILE:HD11	54:HV:263:LEU:CD2	2.43	0.48
54:BV:28:GLU:CD	54:BV:49:THR:HA	2.33	0.48
39:HG:145:ALA:O	39:HG:147:ALA:N	2.47	0.48
12:AL:56:PRO:HD2	12:AL:59:ARG:HB2	1.95	0.48
3:CC:171:VAL:HG12	3:CC:173:LEU:CD1	2.43	0.48
9:EI:12:VAL:HG11	9:EI:22:PRO:HB3	1.95	0.48
41:DI:48:VAL:HG12	41:DI:79:ILE:CG2	2.42	0.48
48:FP:22:ALA:HA	48:FP:33:ILE:HG13	1.94	0.48
44:FL:50:ARG:HG3	44:FL:90:LEU:HD11	1.95	0.48
33:FA:811:C:O2'	33:FA:901:A:N1	2.41	0.48
1:EA:639:U:H2'	1:EA:640:C:C6	2.48	0.48
34:DB:94:ARG:H	34:DB:94:ARG:HD3	1.78	0.48
2:CB:114:C:H1'	15:CO:47:VAL:HG11	1.95	0.48
15:GO:92:PHE:CZ	15:GO:107:ALA:HB2	2.48	0.48
9:AI:135:MET:HB3	9:AI:137:LEU:HD21	1.95	0.48
1:CA:996:A:H4'	17:CQ:91:ARG:NE	2.28	0.48
23:EW:23:LYS:HE2	23:EW:24:ARG:CB	2.39	0.48
32:A5:60:LEU:HD23	32:A5:78:GLY:HA3	1.95	0.48
36:DD:37:ALA:HA	36:DD:42:GLY:HA3	1.94	0.48
43:BK:24:HIS:HB3	43:BK:31:ILE:CG1	2.43	0.48
1:EA:2326:C:H4'	1:EA:2327:A:OP1	2.13	0.48
23:AW:37:VAL:HB	23:AW:38:ARG:HH11	1.78	0.48
1:GA:2845:U:H5''	16:GP:51:ASN:O	2.13	0.48
42:FJ:35:GLN:CD	42:FJ:77:VAL:HB	2.33	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1082:U:O2'	32:A5:41:LEU:HD13	2.13	0.48
32:A5:41:LEU:O	32:A5:45:GLY:N	2.45	0.48
25:CY:3:ALA:HA	25:CY:6:LEU:HB3	1.95	0.48
6:AF:134:GLN:HG3	6:AF:140:ILE:HG12	1.95	0.48
4:GD:29:VAL:HB	4:GD:98:VAL:HG22	1.95	0.48
20:CT:50:LEU:HD23	25:CY:26:PHE:CD2	2.48	0.48
37:DE:106:ILE:HD11	37:DE:124:LEU:CD2	2.43	0.48
33:DA:1239:A:H62	33:DA:1299:A:N6	2.11	0.48
5:AE:108:ILE:CD1	5:AE:181:ILE:HG12	2.44	0.48
42:HJ:32:THR:HG23	42:HJ:83:THR:OG1	2.13	0.48
1:CA:1205:A:N1	5:CE:165:HIS:HB2	2.28	0.48
37:HE:97:GLN:HB2	37:HE:124:LEU:HB2	1.94	0.48
3:AC:140:VAL:HG21	3:AC:189:ALA:HB1	1.96	0.48
33:DA:158:G:H2'	33:DA:159:G:H5'	1.94	0.48
33:FA:471:U:H2'	33:FA:472:U:C6	2.48	0.48
20:GT:29:THR:CA	20:GT:86:THR:HA	2.43	0.48
16:GP:5:LYS:NZ	16:GP:9:GLN:OE1	2.47	0.48
33:FA:381:C:H2'	33:FA:382:A:O4'	2.13	0.48
54:BV:9:ARG:NH1	54:BV:80:GLU:HG3	2.27	0.48
33:DA:1408:A:H61	55:DW:1:KBE:HA	1.78	0.48
1:GA:866:A:C8	1:GA:914:G:C2	3.00	0.48
12:EL:18:ARG:O	12:EL:19:LEU:HB3	2.12	0.48
1:CA:167:A:C2	1:CA:168:G:H1'	2.48	0.48
5:CE:128:ALA:O	5:CE:130:LYS:N	2.46	0.48
11:CK:17:ARG:HD3	11:CK:47:ILE:CD1	2.43	0.48
1:CA:2880:C:H1'	14:CN:92:GLY:H	1.79	0.48
1:AA:482:A:H1'	1:AA:498:G:N2	2.28	0.48
1:AA:2599:G:C2	1:AA:2600:A:C4	3.01	0.48
33:HA:756:C:HO2'	40:HH:2:SER:N	2.11	0.48
36:BD:174:ASP:OD2	36:BD:176:GLY:N	2.45	0.48
35:DC:150:LYS:HG3	35:DC:201:TRP:CE3	2.48	0.48
1:AA:123:G:OP2	59:AA:3218:HOH:O	2.20	0.48
36:DD:146:ARG:CZ	36:DD:148:LYS:HD2	2.43	0.48
1:EA:716:A:OP1	47:FO:89:ARG:NH1	2.45	0.48
4:AD:4:LEU:HD23	4:AD:101:PHE:CE2	2.48	0.48
1:GA:2267:A:H5''	1:GA:2268:A:C5'	2.44	0.48
6:EF:79:ARG:O	6:EF:82:TYR:HB2	2.13	0.48
1:EA:2394:C:OP1	30:E3:29:ARG:NH2	2.46	0.48
25:AY:45:GLN:O	25:AY:47:ARG:N	2.46	0.48
43:HK:96:THR:HG22	43:HK:97:ILE:N	2.28	0.48
17:EQ:91:ARG:HD3	18:ER:11:GLN:HB2	1.95	0.48
9:CI:72:THR:HB	9:CI:115:ASP:CG	2.33	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:EW:23:LYS:HE2	23:EW:24:ARG:N	2.28	0.48
23:GW:17:ALA:O	23:GW:18:LYS:HB2	2.14	0.48
1:AA:980:A:C6	1:AA:981:A:N1	2.81	0.48
12:GL:62:PRO:HG2	30:G3:24:LYS:HD3	1.94	0.48
43:BK:107:ILE:HD12	53:BU:8:GLU:HB2	1.95	0.48
33:BA:1492:A:H2'	33:BA:1493:A:C5'	2.44	0.48
33:HA:922:G:H2'	33:HA:923:A:C8	2.49	0.48
1:GA:929:U:H4'	26:GZ:37:ARG:NH2	2.28	0.48
1:EA:1824:G:O2'	3:EC:245:THR:HG22	2.14	0.48
37:HE:80:THR:OG1	37:HE:81:LEU:N	2.46	0.48
6:CF:71:LYS:HD3	6:CF:72:SER:N	2.28	0.48
45:BM:29:ARG:HH21	45:BM:63:PHE:CB	2.27	0.48
4:GD:98:VAL:HG12	4:GD:180:VAL:HG23	1.95	0.48
8:CH:9:VAL:HG12	8:CH:10:ALA:N	2.27	0.48
23:CW:51:GLY:HA3	23:CW:59:PHE:CE2	2.49	0.48
9:EI:58:ILE:HG23	9:EI:66:PHE:CE1	2.48	0.48
28:C1:33:LEU:N	28:C1:51:ALA:HB3	2.29	0.48
47:FO:30:ALA:HA	47:FO:85:LEU:HD21	1.95	0.48
1:GA:1060:U:H4'	9:GI:9:LYS:HZ1	1.77	0.48
54:DV:196:ALA:C	54:DV:198:GLN:N	2.67	0.48
1:CA:1088:A:H8	1:CA:1088:A:H5''	1.78	0.48
54:DV:309:ARG:NH2	54:DV:402:ALA:HB1	2.29	0.48
26:EZ:40:THR:CG2	26:EZ:43:ILE:HG23	2.43	0.48
1:EA:846:U:O2'	1:EA:847:U:OP2	2.31	0.48
10:EJ:25:LEU:HB2	10:EJ:62:VAL:HG21	1.96	0.48
50:HR:22:ASP:OD1	50:HR:24:LYS:HE3	2.13	0.48
3:CC:80:LEU:HD11	3:CC:109:LEU:HG	1.96	0.48
1:CA:674:G:H1'	5:CE:69:ARG:CD	2.44	0.48
33:BA:697:U:O2	33:BA:798:U:H1'	2.14	0.48
32:A5:122:GLN:CG	32:A5:123:ILE:H	2.25	0.48
13:EM:41:LEU:HG	13:EM:96:ILE:HD13	1.95	0.48
1:EA:2075:U:H2'	1:EA:2238:G:N2	2.28	0.48
1:AA:1842:G:H2'	1:AA:1843:C:C6	2.49	0.48
33:BA:465:A:H2'	33:BA:466:A:C8	2.48	0.48
33:BA:1284:C:H3'	33:BA:1285:A:H8	1.79	0.48
41:BI:51:PRO:HB3	41:BI:84:THR:HG22	1.94	0.48
1:AA:573:U:O2'	1:AA:574:A:H3'	2.14	0.48
1:CA:2484:G:C2	1:CA:2485:G:C8	3.02	0.48
33:HA:413:G:N2	33:HA:428:G:H1'	2.28	0.48
1:EA:620:G:H4'	1:EA:621:A:O5'	2.13	0.48
1:CA:2677:G:H2'	1:CA:2678:C:C6	2.48	0.48
1:CA:1296:G:OP1	1:CA:2709:G:O2'	2.23	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1315:C:O2'	1:AA:1316:U:H5'	2.13	0.48
40:DH:86:TYR:CE1	40:DH:124:GLU:HB2	2.48	0.48
1:AA:2354:C:H4'	23:AW:31:LEU:HD22	1.94	0.48
34:DB:183:PHE:CE2	34:DB:197:PHE:CD2	3.00	0.48
39:DG:88:PRO:HG3	39:DG:149:LYS:HA	1.95	0.48
1:CA:2499:C:O2	59:CA:3526:HOH:O	2.20	0.48
1:CA:2364:C:H4'	23:CW:55:ASP:OD1	2.14	0.48
23:EW:21:GLY:HA2	23:EW:25:PHE:CE2	2.49	0.48
1:CA:2154:A:H3'	1:CA:2155:U:H4'	1.94	0.48
6:CF:32:LYS:HD3	6:CF:91:ARG:NH1	2.28	0.48
1:GA:1925:C:H6	1:GA:1925:C:O5'	1.97	0.48
34:HB:11:ALA:HB1	34:HB:14:HIS:CD2	2.48	0.48
33:DA:1412:C:H2'	33:DA:1413:A:C8	2.48	0.48
33:FA:33:A:H2'	33:FA:34:C:C6	2.48	0.48
1:EA:1131:G:N2	1:EA:2024:G:H21	2.11	0.48
1:GA:2043:C:O2'	59:GA:3248:HOH:O	2.20	0.48
36:FD:193:ALA:HB3	36:FD:195:ILE:HG23	1.95	0.48
20:AT:28:ASN:HB3	20:AT:91:GLN:HE22	1.79	0.48
33:BA:674:G:H4'	50:BR:70:TYR:CE2	2.49	0.48
33:FA:949:A:C1'	33:FA:1364:U:H5	2.27	0.48
20:ET:44:LYS:HG3	20:ET:55:VAL:CG1	2.44	0.48
20:GT:51:PHE:C	20:GT:52:GLU:HG2	2.33	0.48
33:DA:652:U:O3'	40:DH:56:LYS:NZ	2.43	0.48
33:DA:653:U:H5'	40:DH:56:LYS:HE2	1.95	0.48
37:BE:159:LYS:HE2	40:BH:64:LYS:HE3	1.95	0.48
32:A5:48:ALA:HB3	32:A5:51:TYR:HB3	1.94	0.48
11:EK:19:VAL:CG2	11:EK:41:ILE:HG23	2.44	0.48
1:GA:2846:G:H2'	1:GA:2847:U:O4'	2.14	0.48
20:ET:29:THR:CA	20:ET:86:THR:HA	2.43	0.48
54:FV:167:VAL:HG21	54:FV:261:ILE:CD1	2.44	0.48
1:GA:1726:C:N3	1:GA:1735:A:C2	2.82	0.48
33:HA:1264:U:H2'	33:HA:1265:C:C6	2.48	0.48
33:BA:1174:G:C2	33:BA:1175:G:C8	3.01	0.48
3:GC:259:ASN:OD1	3:GC:262:THR:N	2.39	0.48
1:AA:833:A:H2'	1:AA:834:G:C8	2.48	0.48
34:BB:32:GLY:HA3	34:BB:39:ILE:H	1.77	0.48
37:HE:154:ALA:O	37:HE:158:GLY:N	2.46	0.48
54:BV:11:ARG:HE	54:BV:283:ILE:HA	1.78	0.48
33:BA:381:C:H2'	33:BA:382:A:O4'	2.13	0.48
33:HA:484:G:H4'	33:HA:485:U:O5'	2.12	0.48
33:HA:134:G:H1'	33:HA:325:A:C5	2.49	0.48
54:FV:142:ASN:OD1	54:FV:143:LYS:N	2.42	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:763:G:H2'	33:BA:764:C:C6	2.48	0.48
54:HV:550:ILE:HA	54:HV:553:VAL:HG12	1.95	0.48
1:EA:1727:C:H2'	1:EA:1728:C:O4'	2.13	0.48
33:HA:872:A:C8	33:HA:874:G:C8	3.01	0.48
4:CD:34:VAL:HG22	4:CD:94:GLN:H	1.79	0.48
2:EB:35:C:H5'	2:EB:35:C:H6	1.78	0.48
38:HF:55:HIS:N	38:HF:55:HIS:ND1	2.60	0.48
21:EU:90:LYS:HE3	21:EU:90:LYS:HA	1.96	0.48
8:AH:31:VAL:HB	8:AH:32:PRO:CD	2.43	0.48
8:GH:27:ARG:HH22	24:GX:58:ILE:HG22	1.78	0.48
1:CA:2345:G:N3	1:CA:2381:A:H2'	2.28	0.48
25:CY:18:LEU:O	25:CY:22:LEU:HB2	2.13	0.48
32:A5:71:CYS:HA	32:A5:117:LEU:HD13	1.92	0.48
33:BA:1505:G:H4'	33:BA:1506:U:H5''	1.96	0.48
33:HA:1304:G:H2'	33:HA:1332:A:N1	2.28	0.48
33:HA:1330:U:O4	33:HA:1331:G:N1	2.47	0.48
41:BI:20:PHE:HD2	41:BI:64:TYR:HD2	1.59	0.48
3:EC:68:ARG:HD3	3:EC:103:ILE:CD1	2.43	0.48
1:EA:1248:G:C4	17:EQ:2:ARG:HD2	2.49	0.48
1:GA:748:G:OP2	19:GS:88:ARG:HG3	2.13	0.48
43:BK:109:ASN:HD21	53:BU:7:ARG:HD2	1.79	0.48
4:GD:120:GLY:HA2	4:GD:162:ALA:CB	2.43	0.48
33:FA:554:A:H5'	44:FL:26:ALA:HB1	1.94	0.48
1:AA:2103:C:H42	1:AA:2186:G:H1	1.61	0.48
3:EC:106:PRO:O	3:EC:109:LEU:HD13	2.14	0.48
41:HI:41:ARG:CA	41:HI:45:ARG:HD3	2.43	0.48
1:GA:2108:A:H62	1:GA:2180:U:C2'	2.25	0.48
3:CC:16:VAL:HB	3:CC:203:VAL:HB	1.94	0.48
1:GA:994:C:H1'	18:GR:10:LYS:HE2	1.96	0.48
49:HQ:46:VAL:HG21	49:HQ:61:ILE:HD13	1.95	0.48
29:A2:34:ARG:NH1	29:A2:41:ARG:O	2.47	0.48
33:BA:676:A:C6	33:BA:677:U:C4	3.01	0.48
5:AE:112:LEU:HD13	5:AE:186:VAL:HG11	1.96	0.48
33:BA:1306:A:C2	33:BA:1332:A:H1'	2.47	0.48
1:AA:1857:G:N2	1:AA:1884:G:O2'	2.42	0.48
1:CA:716:A:OP1	47:DO:89:ARG:NH1	2.47	0.48
7:AG:112:VAL:HG23	7:AG:113:ASP:N	2.28	0.48
1:GA:2305:U:H5''	6:GF:130:GLY:HA3	1.96	0.48
30:A3:44:ARG:N	30:A3:45:PRO:CD	2.76	0.48
42:FJ:40:ILE:HB	42:FJ:73:LEU:HB3	1.95	0.48
1:GA:2415:G:H4'	12:GL:66:PHE:HB2	1.95	0.48
51:HS:49:ILE:HD13	51:HS:71:LEU:HD21	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:834:G:H5'	30:C3:56:LEU:HD21	1.96	0.48
28:A1:36:LYS:CG	28:A1:47:ILE:HD12	2.44	0.48
31:E4:15:LYS:HB3	31:E4:26:ILE:CD1	2.44	0.48
44:FL:83:ARG:NH2	44:FL:96:HIS:CD2	2.82	0.48
1:AA:716:A:OP1	47:BO:89:ARG:NH1	2.46	0.48
1:GA:2019:A:H4'	17:GQ:33:VAL:HG21	1.96	0.48
1:CA:143:C:O2'	20:CT:3:ARG:NH1	2.46	0.48
1:EA:2020:A:H5'	27:E0:8:THR:CG2	2.44	0.48
7:AG:60:GLY:O	7:AG:61:TRP:HB2	2.14	0.48
40:BH:46:ILE:HD12	40:BH:61:LEU:HD22	1.95	0.48
22:CV:75:GLN:HB2	22:CV:92:VAL:HG23	1.95	0.48
51:BS:23:VAL:O	51:BS:26:GLY:N	2.46	0.48
33:FA:66:A:C2	33:FA:67:C:C6	3.01	0.48
1:GA:1747:U:H2'	1:GA:1748:C:C6	2.48	0.48
3:CC:94:LEU:HD22	3:CC:100:ARG:NH1	2.29	0.48
19:ES:84:ARG:HB2	19:ES:96:ILE:HG23	1.95	0.48
3:CC:238:ASN:OD1	59:CC:310:HOH:O	2.20	0.48
33:HA:836:G:C6	33:HA:837:U:N3	2.82	0.48
1:CA:725:G:C6	1:CA:726:G:N1	2.82	0.48
11:GK:5:GLN:O	11:GK:6:THR:HB	2.14	0.48
50:DR:23:TYR:HA	50:DR:58:ALA:HB1	1.95	0.48
1:AA:1027:A:H2'	1:AA:1126:A:N6	2.28	0.48
8:EH:21:VAL:HG21	8:EH:25:TYR:CD2	2.49	0.48
38:BF:49:TYR:CE2	50:BR:66:SER:HA	2.49	0.48
41:HI:112:GLU:OE2	41:HI:115:LYS:NZ	2.35	0.48
54:HV:255:ARG:CG	54:HV:260:GLU:HB2	2.44	0.48
35:BC:159:GLY:HA2	35:BC:193:TYR:CE1	2.49	0.48
32:E5:51:TYR:C	32:E5:51:TYR:CD1	2.86	0.48
33:HA:881:G:P	44:HL:9:ARG:HH22	2.37	0.48
10:CJ:102:GLU:CG	10:CJ:124:VAL:HG21	2.43	0.48
22:GV:5:ASN:N	22:GV:5:ASN:OD1	2.34	0.48
1:CA:1021:A:N3	1:CA:1021:A:H3'	2.28	0.48
1:GA:563:A:O5'	17:GQ:40:LYS:NZ	2.43	0.48
1:EA:2502:G:C5'	1:EA:2503:A:H5''	2.43	0.48
43:DK:15:GLN:HG2	39:HG:139:GLU:OE2	2.14	0.48
39:HG:126:ASP:O	39:HG:130:ASN:CA	2.61	0.48
1:GA:1176:U:O2'	1:GA:1177:G:C8	2.66	0.48
43:HK:109:ASN:ND2	53:HU:8:GLU:HB2	2.29	0.48
23:EW:37:VAL:HG13	23:EW:55:ASP:C	2.34	0.48
1:CA:2884:U:C6	27:C0:49:ARG:HG2	2.48	0.48
33:BA:685:G:C4'	43:BK:41:ALA:O	2.62	0.48
13:GM:13:HIS:O	13:GM:14:LYS:HB3	2.11	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1095:A:N1	54:HV:654:ILE:HD11	2.28	0.48
54:HV:625:GLU:HA	54:HV:628:THR:HG23	1.95	0.48
33:HA:60:A:O2'	52:HT:5:LYS:HD2	2.13	0.48
6:CF:39:VAL:HG13	6:CF:40:GLY:N	2.29	0.48
1:AA:1131:G:C4	10:AJ:77:HIS:ND1	2.78	0.48
1:CA:2755:C:O2'	1:CA:2756:U:H2'	2.14	0.48
1:GA:139:U:O2'	20:GT:1:MET:HA	2.13	0.48
29:C2:1:MET:CG	29:C2:2:LYS:N	2.77	0.48
1:AA:163:C:O2'	1:AA:164:C:P	2.72	0.48
1:CA:1723:G:H3'	1:CA:1724:G:C8	2.49	0.48
1:CA:1715:G:N2	1:CA:1744:A:OP2	2.41	0.48
1:EA:1079:C:C2'	1:EA:1080:A:H5'	2.43	0.48
44:DL:44:LYS:CB	44:DL:45:PRO:HD3	2.43	0.48
1:GA:2307:G:H4'	1:GA:2308:G:C5'	2.43	0.48
1:EA:118:A:N3	1:EA:178:G:H1'	2.27	0.48
1:CA:1324:G:C4	1:CA:1328:A:N6	2.82	0.48
16:GP:98:TYR:CE1	16:GP:99:LEU:HD22	2.49	0.48
33:BA:1319:A:OP1	51:BS:70:LYS:NZ	2.46	0.48
33:BA:79:G:O2'	33:BA:80:A:O5'	2.31	0.48
15:CO:51:ALA:CB	15:CO:78:VAL:HG13	2.44	0.48
1:AA:2814:A:C5	1:AA:2815:C:C5	3.02	0.48
33:DA:1295:U:H5''	8:GH:15:LEU:HD13	1.95	0.48
11:CK:18:ARG:H	11:CK:45:GLU:HB2	1.78	0.48
17:GQ:39:ILE:O	17:GQ:43:GLN:HG3	2.14	0.48
11:CK:80:ASP:HB2	16:CP:67:GLU:HG3	1.95	0.48
1:CA:2267:A:H5''	1:CA:2268:A:H5'	1.95	0.48
11:GK:80:ASP:OD1	16:GP:61:ARG:NH1	2.46	0.48
33:HA:656:G:H4'	47:HO:62:GLN:HE22	1.78	0.48
11:EK:61:VAL:HG22	11:EK:87:LEU:HD11	1.96	0.48
7:GG:97:VAL:HG11	7:GG:123:GLU:HA	1.95	0.48
33:FA:1391:U:H2'	33:FA:1392:G:C8	2.49	0.48
41:FI:34:SER:HB3	41:FI:37:GLN:HG2	1.94	0.48
10:CJ:15:TRP:C	10:CJ:16:TYR:CD1	2.86	0.48
1:EA:1405:U:H2'	1:EA:1406:U:C6	2.49	0.48
34:HB:27:LYS:N	34:HB:28:PRO:CD	2.77	0.48
4:AD:70:LYS:O	4:AD:71:ALA:HB3	2.14	0.48
6:CF:110:ILE:O	6:CF:112:ASP:N	2.47	0.48
33:HA:1004:A:H5'	33:HA:1024:G:N2	2.28	0.48
19:GS:63:GLY:O	19:GS:64:ALA:HB3	2.12	0.48
1:AA:2229:U:H2'	1:AA:2230:G:H8	1.78	0.48
33:FA:1054:C:OP2	59:FA:1780:HOH:O	2.20	0.48
54:DV:320:LEU:HD23	54:DV:321:ALA:N	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1831:G:C4	1:CA:1975:G:N2	2.81	0.48
20:GT:69:ARG:CD	20:GT:70:HIS:H	2.27	0.48
33:FA:426:U:H4'	36:FD:40:GLN:HA	1.94	0.48
33:FA:1150:A:H1'	33:FA:1280:A:N6	2.29	0.48
44:DL:33:VAL:HG21	54:DV:429:GLU:HG3	1.94	0.48
11:AK:9:ASN:O	11:AK:83:ALA:HA	2.14	0.48
54:DV:526:GLU:O	54:DV:528:GLY:N	2.46	0.48
40:FH:99:LEU:H	40:FH:99:LEU:HD23	1.79	0.48
6:AF:106:ALA:O	6:AF:136:ILE:HD12	2.14	0.48
2:CB:72:G:O2'	2:CB:104:A:N6	2.43	0.48
17:GQ:93:ILE:O	17:GQ:96:ASP:N	2.46	0.48
1:EA:1022:G:N2	1:EA:1142:A:C2	2.81	0.48
1:CA:995:C:H5'	1:CA:995:C:C6	2.49	0.48
1:GA:1172:C:C5	1:GA:1173:U:H1'	2.48	0.48
23:EW:17:ALA:O	23:EW:18:LYS:HB2	2.14	0.48
44:FL:44:LYS:CB	44:FL:45:PRO:HD3	2.41	0.48
1:AA:975:A:C2	1:AA:990:A:C8	3.01	0.48
1:AA:2336:A:H61	23:AW:40:ARG:CB	2.26	0.48
29:E2:43:THR:O	29:E2:44:VAL:CB	2.59	0.48
1:AA:138:U:OP1	1:AA:139:U:H3'	2.14	0.48
44:DL:63:VAL:HG21	44:DL:95:TYR:CE1	2.49	0.48
10:AJ:81:ILE:CG1	10:AJ:82:GLY:N	2.76	0.48
1:AA:1250:G:OP2	12:AL:21:ARG:NH2	2.47	0.48
45:HM:4:ILE:HB	45:HM:57:ARG:NH2	2.28	0.48
26:GZ:3:THR:HA	26:GZ:37:ARG:O	2.14	0.48
33:DA:42:G:HO2'	33:DA:622:A:H2	1.55	0.48
45:BM:4:ILE:HA	45:BM:57:ARG:HG3	1.94	0.48
9:GI:76:ALA:O	9:GI:78:LEU:N	2.46	0.48
14:CN:26:GLY:HA2	14:CN:75:ILE:HD13	1.96	0.48
34:DB:70:GLY:CA	34:DB:163:ILE:HG22	2.44	0.48
39:HG:106:GLU:HA	39:HG:109:ARG:NE	2.28	0.48
34:DB:67:LEU:HD13	34:DB:160:LEU:HD11	1.95	0.48
9:CI:106:GLN:HG2	9:CI:107:GLU:N	2.28	0.48
41:FI:88:MET:SD	41:FI:89:GLU:N	2.87	0.48
1:GA:2307:G:H4'	1:GA:2308:G:O4'	2.14	0.48
6:GF:39:VAL:HG13	6:GF:40:GLY:N	2.28	0.48
1:GA:2108:A:N1	1:GA:2181:U:H5	2.12	0.48
54:BV:497:LYS:HG2	54:BV:524:PRO:HD2	1.94	0.48
28:C1:50:GLU:O	28:C1:51:ALA:HB2	2.14	0.48
1:CA:137:U:H5	1:CA:140:C:H1'	1.78	0.48
5:AE:149:ILE:O	5:AE:188:MET:HA	2.14	0.48
4:CD:151:THR:CG2	4:CD:152:PRO:HD3	2.43	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:600:A:H2'	33:DA:601:G:C8	2.49	0.48
1:AA:11:C:H2'	1:AA:12:U:H5'	1.95	0.48
1:EA:846:U:O2'	1:EA:847:U:P	2.71	0.48
35:BC:77:ILE:HA	35:BC:84:VAL:HG23	1.96	0.48
10:EJ:99:ARG:O	10:EJ:103:ILE:HG23	2.14	0.48
1:GA:2461:A:H1'	1:GA:2492:U:C2	2.48	0.48
14:AN:98:LEU:HD22	27:A0:42:ILE:HD11	1.96	0.48
1:GA:2684:U:C4	1:GA:2685:G:N7	2.82	0.48
33:BA:727:G:C2	33:BA:731:G:C2	3.02	0.48
33:HA:1283:U:H2'	33:HA:1284:C:C6	2.49	0.48
1:CA:1174:U:H5'	1:CA:1175:A:OP2	2.13	0.48
1:EA:95:A:C2	1:EA:96:C:H1'	2.49	0.48
9:AI:116:MET:SD	9:AI:124:MET:HE3	2.53	0.48
1:AA:852:U:H2'	1:AA:853:C:H6	1.78	0.48
40:BH:83:LEU:HD23	44:BL:4:VAL:HG11	1.96	0.48
33:BA:1009:U:H3	33:BA:1020:G:H1	1.60	0.48
33:BA:767:A:C2	33:BA:768:A:C4	3.02	0.48
3:AC:109:LEU:HD23	3:AC:110:LYS:N	2.29	0.48
33:DA:645:G:C2	33:DA:646:G:C8	3.02	0.48
3:EC:231:HIS:HA	3:EC:241:LYS:HE3	1.96	0.48
33:HA:685:G:C2	33:HA:686:U:C4	3.02	0.48
33:BA:776:G:N2	33:BA:802:A:OP2	2.44	0.48
54:DV:259:ASN:ND2	54:DV:259:ASN:O	2.37	0.48
33:FA:1092:A:C6	33:FA:1093:A:C6	3.02	0.48
54:HV:200:VAL:HG23	54:HV:201:THR:HG23	1.96	0.48
34:DB:99:MET:HA	34:DB:106:VAL:HG21	1.95	0.48
32:A5:71:CYS:CA	32:A5:117:LEU:HD12	2.42	0.48
10:GJ:45:THR:HG21	10:GJ:50:THR:HG21	1.95	0.48
17:CQ:91:ARG:NH2	17:CQ:93:ILE:HD13	2.29	0.48
33:BA:926:G:C6	33:BA:1505:G:C5	3.01	0.48
1:CA:945:A:OP1	59:CA:3347:HOH:O	2.20	0.48
41:FI:42:GLU:C	41:FI:44:ALA:H	2.16	0.48
23:AW:23:LYS:HE2	23:AW:24:ARG:CB	2.44	0.48
43:DK:127:ARG:O	53:DU:34:ARG:CZ	2.61	0.48
1:AA:1223:G:C6	1:AA:1227:G:C6	3.02	0.48
1:AA:974:G:H8	1:AA:990:A:H62	1.61	0.48
29:E2:31:LEU:HD22	29:E2:42:LEU:HD13	1.94	0.48
22:CV:4:ILE:HD12	22:CV:47:VAL:HG22	1.95	0.48
1:CA:558:U:H5''	10:CJ:111:LYS:HE3	1.95	0.48
6:CF:39:VAL:HG13	6:CF:40:GLY:H	1.79	0.48
17:GQ:65:ASN:HD22	17:GQ:75:TYR:HB3	1.79	0.48
9:AI:14:ALA:HA	9:AI:45:THR:CG2	2.43	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DC:11:ARG:NH2	35:DC:182:ILE:HG13	2.29	0.48
3:CC:251:THR:HG22	3:CC:252:LYS:H	1.79	0.48
9:AI:20:SER:HA	9:AI:24:GLY:HA3	1.94	0.48
33:DA:212:G:H2'	33:DA:213:G:C8	2.49	0.48
1:EA:1012:U:OP2	17:EQ:69:ARG:NH1	2.47	0.48
33:BA:716:A:C5	33:BA:717:U:C4	3.02	0.48
35:BC:129:MET:HB2	35:BC:132:ARG:HG3	1.96	0.48
12:AL:2:ARG:O	12:AL:5:THR:HG22	2.14	0.48
1:GA:2547:A:C2	1:GA:2562:U:C2	3.01	0.48
33:FA:945:G:C6	33:FA:1337:G:C5	3.02	0.48
43:DK:24:HIS:HB3	43:DK:31:ILE:CG1	2.44	0.48
21:GU:95:PHE:HD1	21:GU:95:PHE:N	2.12	0.48
1:AA:215:G:H4'	1:AA:216:A:H4'	1.95	0.48
41:HI:21:ILE:HG12	41:HI:63:LEU:HD12	1.96	0.48
1:AA:475:C:O2	1:AA:479:A:N6	2.46	0.48
1:GA:1258:U:O4'	5:GE:79:ARG:HD2	2.14	0.48
1:GA:2142:A:C5	1:GA:2144:G:H8	2.31	0.48
1:CA:1857:G:N2	1:CA:1884:G:O2'	2.39	0.48
7:CG:51:PHE:CD1	7:CG:68:ARG:HG2	2.49	0.48
1:AA:1537:G:C2	1:AA:1538:G:H1'	2.49	0.48
33:BA:340:U:H2'	33:BA:341:C:C6	2.49	0.48
21:EU:41:VAL:O	21:EU:59:GLU:HA	2.14	0.48
9:CI:52:LEU:N	9:CI:52:LEU:HD12	2.28	0.48
6:CF:15:LEU:HA	6:CF:18:GLU:HB2	1.95	0.48
36:FD:174:ASP:OD2	36:FD:177:LYS:N	2.37	0.48
18:CR:27:ILE:HG13	18:CR:33:VAL:CG1	2.44	0.48
1:CA:2419:U:H2'	1:CA:2420:C:C6	2.49	0.48
1:AA:1344:U:H4'	1:AA:1384:A:C5	2.49	0.48
1:CA:2834:G:H2'	1:CA:2879:A:N6	2.29	0.48
32:A5:43:LYS:NZ	32:A5:98:GLU:OE1	2.43	0.48
1:EA:1853:A:N1	1:EA:2087:G:H1'	2.29	0.48
1:GA:2020:A:H5'	27:G0:8:THR:CG2	2.44	0.48
10:AJ:60:ASP:HB3	10:AJ:97:PRO:HG2	1.95	0.48
4:GD:35:THR:OG1	4:GD:49:GLN:OE1	2.31	0.48
1:AA:958:U:H5''	1:AA:959:A:O5'	2.14	0.48
3:CC:259:ASN:O	3:CC:260:LYS:HB2	2.14	0.48
1:AA:2622:U:O2'	1:AA:2825:G:N7	2.46	0.48
35:BC:47:LEU:HB3	35:BC:50:ALA:HB3	1.96	0.48
47:FO:4:SER:OG	47:FO:6:GLU:HG2	2.14	0.48
33:HA:977:A:N6	33:HA:1224:U:O5'	2.46	0.48
33:BA:224:U:C2	33:BA:225:C:C5	3.02	0.48
7:CG:18:ILE:HD12	7:CG:19:ASN:N	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:994:C:O2	18:ER:10:LYS:HE3	2.13	0.48
10:EJ:39:LYS:HA	10:EJ:43:GLU:HG3	1.96	0.48
17:EQ:91:ARG:NH1	18:ER:10:LYS:HB3	2.29	0.48
17:AQ:91:ARG:NH1	18:AR:11:GLN:O	2.47	0.48
33:HA:461:A:C2'	33:HA:462:G:H5'	2.43	0.48
1:GA:1656:C:OP1	4:GD:141:ARG:NH1	2.46	0.48
1:AA:2330:G:N2	1:AA:2386:A:N3	2.62	0.48
36:HD:26:ARG:NH1	36:HD:31:LYS:HE3	2.28	0.48
1:AA:2311:A:C2	6:AF:76:PHE:HB3	2.49	0.48
54:BV:20:ASP:N	58:BV:801:GCP:H3B1	2.29	0.48
33:DA:926:G:C6	33:DA:1505:G:C5	3.02	0.48
35:BC:106:VAL:HG23	35:BC:106:VAL:O	2.14	0.48
43:BK:44:TRP:HA	43:BK:70:CYS:SG	2.54	0.48
33:FA:1493:A:H8	55:FW:3:SER:OG	1.97	0.48
33:FA:554:A:C5'	44:FL:26:ALA:HB1	2.43	0.48
48:BP:4:ILE:HG13	48:BP:21:VAL:HG12	1.94	0.48
1:AA:1737:G:C2	1:AA:1738:G:N2	2.82	0.48
1:CA:819:A:OP2	1:CA:1187:G:N2	2.30	0.48
33:HA:1011:C:H2'	33:HA:1012:A:C5'	2.44	0.48
34:HB:20:ARG:HA	34:HB:20:ARG:NH1	2.29	0.48
33:BA:922:G:H2'	33:BA:923:A:C8	2.49	0.48
33:BA:1417:G:N2	33:BA:1482:G:H2'	2.29	0.48
13:AM:46:ILE:HD13	13:AM:47:GLU:N	2.29	0.48
44:BL:87:VAL:C	44:BL:89:ASP:H	2.17	0.48
1:EA:2105:U:H2'	1:EA:2106:U:O4'	2.14	0.48
38:HF:3:HIS:HB2	38:HF:92:THR:HG23	1.96	0.48
1:GA:1782:U:C6	1:GA:2609:U:C5	3.02	0.48
1:AA:1475:G:H1'	1:AA:1476:U:OP2	2.14	0.48
7:AG:84:LYS:HG3	7:AG:132:LEU:N	2.29	0.48
1:GA:1715:G:N2	1:GA:1744:A:OP2	2.46	0.48
43:FK:35:THR:HB	43:FK:40:ASN:H	1.78	0.48
9:AI:60:VAL:HG22	9:AI:66:PHE:CB	2.44	0.48
1:AA:546:U:O2'	1:AA:547:A:H4'	2.14	0.48
1:CA:1088:A:O2'	1:CA:1089:A:OP1	2.32	0.48
33:BA:945:G:C6	33:BA:1337:G:C5	3.02	0.48
14:AN:112:TYR:HE1	27:A0:56:LYS:HZ1	1.61	0.48
33:HA:656:G:H4'	47:HO:62:GLN:NE2	2.29	0.48
20:AT:9:LYS:O	20:AT:12:ARG:NH1	2.45	0.48
10:GJ:30:THR:HG22	10:GJ:31:GLU:N	2.28	0.48
1:EA:580:U:O3'	17:EQ:30:VAL:CG1	2.61	0.48
13:CM:77:PRO:HD2	13:CM:80:VAL:HG11	1.95	0.48
1:GA:2773:C:OP1	4:GD:171:THR:HG23	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:651:G:H5'	30:G3:18:LYS:HG3	1.95	0.48
40:BH:54:ASP:CG	40:BH:55:THR:H	2.18	0.48
7:AG:88:LEU:HD11	7:AG:95:ALA:HB2	1.95	0.48
1:GA:1013:C:OP2	59:GA:3595:HOH:O	2.19	0.48
1:GA:576:U:OP1	59:GA:3661:HOH:O	2.20	0.48
34:FB:40:ILE:HG21	34:FB:201:GLY:HA2	1.96	0.48
11:CK:10:VAL:HG21	11:CK:16:ALA:CB	2.44	0.48
38:FF:18:VAL:HA	38:FF:21:MET:SD	2.54	0.48
54:BV:430:LYS:HG2	54:BV:479:VAL:CG2	2.43	0.48
11:AK:2:ILE:HD12	11:AK:8:LEU:HD11	1.96	0.48
5:GE:181:ILE:HG12	12:GL:2:ARG:HH21	1.77	0.48
54:FV:536:PHE:CZ	54:FV:578:LEU:HD23	2.49	0.48
33:FA:794:A:C6	33:FA:795:C:N3	2.82	0.48
5:AE:146:VAL:HG12	5:AE:185:LYS:HB2	1.96	0.48
11:AK:61:VAL:HG11	11:AK:112:PHE:CE1	2.49	0.48
1:GA:2705:A:OP2	59:GA:3670:HOH:O	2.20	0.48
2:AB:73:A:C4	2:AB:104:A:C2	3.02	0.48
6:EF:61:GLY:HA3	6:EF:94:ARG:NH1	2.29	0.48
33:BA:1375:A:P	39:BG:28:ASN:HD22	2.37	0.48
41:HI:129:LYS:HG3	41:HI:130:ARG:H	1.78	0.48
26:EZ:39:ASP:OD2	26:EZ:44:ARG:NH1	2.46	0.48
12:CL:12:SER:OG	12:CL:12:SER:O	2.32	0.48
4:GD:190:LYS:O	4:GD:190:LYS:HG3	2.14	0.48
1:GA:2287:A:C4	1:GA:2289:G:N7	2.81	0.48
32:E5:58:THR:CB	32:E5:82:ILE:HB	2.44	0.47
1:EA:1142:A:C2	1:EA:1144:A:C1'	2.97	0.47
41:FI:25:ASN:HA	41:FI:59:GLU:O	2.14	0.47
54:DV:219:HIS:NE2	54:DV:221:ASN:HB2	2.29	0.47
1:AA:1187:G:H5''	18:AR:83:TYR:CE2	2.49	0.47
32:E5:33:VAL:HG12	32:E5:34:THR:N	2.21	0.47
37:FE:38:VAL:HG11	37:FE:114:VAL:HA	1.96	0.47
23:CW:40:ARG:H	23:CW:56:HIS:HB3	1.78	0.47
6:AF:10:GLU:HG2	6:AF:13:LYS:CD	2.44	0.47
1:AA:2303:G:C4	1:AA:2304:G:C8	3.02	0.47
5:AE:46:GLN:HG3	5:AE:87:ALA:CB	2.44	0.47
14:GN:26:GLY:HA2	14:GN:75:ILE:HD13	1.95	0.47
1:EA:2741:A:H2'	1:EA:2742:G:O4'	2.14	0.47
33:BA:1512:U:H2'	33:BA:1513:A:H8	1.79	0.47
16:EP:50:ARG:CD	16:EP:51:ASN:N	2.77	0.47
43:BK:16:VAL:HG12	43:BK:79:ILE:HG12	1.96	0.47
1:EA:725:G:C6	1:EA:726:G:N1	2.82	0.47
33:HA:1309:G:C6	33:HA:1329:A:C2	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1069:A:C4	1:CA:1073:A:N7	2.82	0.47
33:HA:736:C:OP1	50:HR:61:ARG:NE	2.47	0.47
1:AA:160:A:C6	1:AA:161:A:C6	3.02	0.47
9:AI:19:PRO:HG3	9:AI:23:VAL:HG23	1.95	0.47
18:AR:39:LEU:HB3	18:AR:49:ILE:HD13	1.95	0.47
7:CG:96:ALA:HB3	7:CG:103:ASN:HB3	1.96	0.47
6:GF:134:GLN:HG3	6:GF:140:ILE:CG1	2.43	0.47
1:CA:1079:C:H2'	1:CA:1080:A:H5'	1.95	0.47
44:HL:87:VAL:O	44:HL:89:ASP:N	2.47	0.47
17:GQ:4:LYS:HE2	17:GQ:7:VAL:CG1	2.43	0.47
7:CG:84:LYS:CG	7:CG:85:LYS:N	2.77	0.47
1:GA:1083:U:C6	1:GA:1085:A:OP2	2.67	0.47
11:CK:24:VAL:HG12	11:CK:30:ARG:HD3	1.95	0.47
1:EA:2849:U:P	16:EP:92:ARG:HH12	2.37	0.47
33:BA:575:G:C5	33:BA:881:G:C2	3.02	0.47
18:ER:98:ILE:O	18:ER:98:ILE:HG22	2.14	0.47
33:BA:75:G:H3'	33:BA:76:G:H8	1.79	0.47
33:BA:373:A:H1'	33:BA:481:G:H1'	1.96	0.47
42:BJ:25:ILE:HG21	42:BJ:74:VAL:HG11	1.96	0.47
19:CS:59:GLU:HA	19:CS:64:ALA:HB2	1.95	0.47
21:AU:52:ASN:C	21:AU:54:PRO:HD2	2.34	0.47
1:EA:2358:A:C5	1:EA:2359:C:C5	3.02	0.47
1:EA:846:U:H1'	1:EA:847:U:C5	2.49	0.47
54:FV:113:TYR:O	54:FV:142:ASN:N	2.47	0.47
1:AA:2230:G:H2'	1:AA:2231:U:C6	2.48	0.47
4:GD:110:THR:HG23	4:GD:171:THR:HG22	1.95	0.47
1:GA:1536:C:H1'	1:GA:1537:G:N2	2.29	0.47
35:BC:88:ARG:HB2	35:BC:101:ILE:HG21	1.95	0.47
1:EA:1011:G:OP1	17:EQ:76:SER:OG	2.25	0.47
33:FA:542:G:OP1	36:FD:10:LYS:HE3	2.14	0.47
33:FA:1478:U:H2'	33:FA:1479:C:C6	2.50	0.47
2:GB:28:C:H2'	2:GB:29:A:C8	2.49	0.47
33:HA:715:A:H2'	33:HA:716:A:C8	2.49	0.47
34:DB:185:ILE:HA	34:DB:199:ILE:HB	1.95	0.47
1:EA:1770:G:C5	1:EA:1983:G:C6	3.02	0.47
22:GV:63:ILE:HD12	22:GV:72:VAL:HG21	1.94	0.47
14:EN:37:THR:OG1	14:EN:40:LYS:HD2	2.14	0.47
39:BG:50:LEU:CD1	39:BG:61:ALA:HB1	2.43	0.47
1:AA:2864:G:C5	1:AA:2865:U:C4	3.02	0.47
6:GF:21:TYR:CE2	6:GF:28:PRO:HD3	2.48	0.47
1:CA:1000:A:N6	1:CA:1001:A:N1	2.62	0.47
12:AL:74:THR:HG22	12:AL:107:PHE:HB2	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:EJ:12:LYS:O	10:EJ:13:ARG:HB2	2.14	0.47
1:CA:1770:G:C5	1:CA:1983:G:C6	3.01	0.47
6:EF:111:ARG:NE	45:FM:75:MET:SD	2.86	0.47
4:CD:193:VAL:HB	4:CD:194:PRO:HD2	1.96	0.47
11:GK:61:VAL:CG2	11:GK:87:LEU:HD11	2.44	0.47
38:HF:22:ILE:O	38:HF:26:THR:OG1	2.21	0.47
36:HD:61:VAL:HA	36:HD:64:ILE:HD12	1.96	0.47
10:GJ:12:LYS:O	10:GJ:13:ARG:HB2	2.14	0.47
17:GQ:91:ARG:NE	17:GQ:93:ILE:HG21	2.29	0.47
10:AJ:111:LYS:HD2	10:AJ:112:GLY:H	1.77	0.47
1:AA:2884:U:O4'	1:AA:2884:U:O2	2.32	0.47
14:AN:71:ARG:HH21	14:AN:71:ARG:CG	2.27	0.47
43:HK:84:VAL:N	43:HK:109:ASN:O	2.47	0.47
23:EW:65:LYS:O	23:EW:81:ILE:HA	2.13	0.47
54:FV:24:THR:CB	58:FV:801:GCP:O2B	2.60	0.47
23:GW:18:LYS:N	23:GW:36:ILE:HB	2.28	0.47
37:FE:81:LEU:HD12	37:FE:147:MET:SD	2.54	0.47
1:GA:1087:G:O2'	1:GA:1088:A:P	2.72	0.47
46:HN:35:ASN:HB2	46:HN:41:ARG:HD3	1.96	0.47
23:CW:39:GLN:CG	23:CW:41:GLY:O	2.62	0.47
36:FD:13:ARG:NH1	36:FD:37:ALA:O	2.44	0.47
1:EA:2137:U:O4	1:EA:2155:U:O2'	2.22	0.47
9:GI:57:VAL:HG12	9:GI:58:ILE:N	2.29	0.47
1:AA:2302:U:H2'	1:AA:2303:G:H8	1.79	0.47
37:HE:80:THR:HB	37:HE:122:ASN:ND2	2.30	0.47
1:AA:2773:C:OP1	4:AD:171:THR:HG23	2.14	0.47
37:BE:114:VAL:HG21	37:BE:141:ILE:CD1	2.44	0.47
1:EA:1079:C:C2	1:EA:1088:A:C6	3.02	0.47
1:GA:1223:G:N2	1:GA:1226:A:OP2	2.38	0.47
36:BD:105:MET:HG2	36:BD:171:LEU:HD22	1.95	0.47
8:EH:3:VAL:CG2	8:EH:36:ALA:HB1	2.44	0.47
1:CA:597:G:C2	1:CA:661:A:C2	3.02	0.47
1:GA:1073:A:H3'	1:GA:1074:G:C5'	2.44	0.47
1:CA:2340:A:H2'	1:CA:2341:G:C8	2.49	0.47
51:HS:51:VAL:CG2	51:HS:71:LEU:HD21	2.43	0.47
15:CO:111:ARG:HD3	15:CO:117:PHE:CE1	2.48	0.47
33:FA:1379:G:N7	39:FG:2:PRO:HB2	2.29	0.47
6:AF:121:PHE:CE1	6:AF:166:ARG:HD3	2.49	0.47
1:AA:363:G:H2'	1:AA:364:C:C6	2.49	0.47
33:DA:1132:C:H2'	33:DA:1133:G:C8	2.50	0.47
1:CA:419:U:H2'	1:CA:420:C:H6	1.78	0.47
33:DA:796:C:OP1	43:DK:128:ARG:HB3	2.13	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:42:TRP:O	46:DN:45:VAL:HG22	2.14	0.47
6:AF:133:GLU:H	6:AF:150:GLY:CA	2.27	0.47
1:CA:1613:G:C2	1:CA:1619:G:C5	3.02	0.47
1:GA:1004:U:O2'	1:GA:1005:C:OP2	2.32	0.47
39:BG:70:ARG:CG	39:BG:96:ARG:HG2	2.44	0.47
48:BP:52:LEU:HD13	48:BP:78:VAL:HG21	1.96	0.47
1:CA:1083:U:C6	1:CA:1085:A:OP2	2.67	0.47
1:AA:2841:C:C2	1:AA:2877:G:N2	2.82	0.47
35:BC:23:PHE:CD1	35:BC:24:ALA:N	2.82	0.47
38:BF:97:THR:O	38:BF:98:GLU:HB3	2.12	0.47
37:BE:151:GLU:HG2	37:BE:152:MET:HG2	1.96	0.47
1:EA:2360:G:O4'	12:EL:60:ARG:NH2	2.47	0.47
1:EA:284:U:H2'	1:EA:285:G:C8	2.49	0.47
33:FA:98:A:H2'	33:FA:99:C:C6	2.49	0.47
1:GA:1773:A:C5	1:GA:1829:A:H1'	2.50	0.47
4:AD:193:VAL:HB	4:AD:194:PRO:HD2	1.96	0.47
52:BT:55:GLN:N	52:BT:56:PRO:HD2	2.29	0.47
1:EA:2835:A:N7	1:EA:2878:U:C5	2.82	0.47
38:HF:17:GLN:O	38:HF:21:MET:N	2.46	0.47
44:HL:38:TYR:HB2	44:HL:52:VAL:HG23	1.95	0.47
13:AM:106:ASP:O	13:AM:108:VAL:N	2.47	0.47
1:AA:136:G:H1	1:AA:143:C:H42	1.61	0.47
41:BI:91:ASP:HB2	41:BI:93:SER:H	1.79	0.47
7:CG:38:ASP:N	7:CG:38:ASP:OD1	2.47	0.47
9:EI:33:ASN:ND2	9:EI:65:SER:OG	2.47	0.47
10:GJ:4:PHE:CG	10:GJ:5:THR:N	2.82	0.47
10:GJ:4:PHE:N	10:GJ:44:TYR:HH	2.10	0.47
17:GQ:91:ARG:HH11	18:GR:11:GLN:N	2.12	0.47
10:EJ:43:GLU:O	10:EJ:45:THR:HG22	2.14	0.47
23:GW:23:LYS:HE2	23:GW:24:ARG:CB	2.44	0.47
1:GA:2059:A:C2	1:GA:2503:A:C6	3.02	0.47
10:CJ:44:TYR:HD1	10:CJ:44:TYR:O	1.97	0.47
33:BA:483:C:H5''	33:BA:484:G:OP2	2.14	0.47
23:CW:8:SER:O	23:CW:9:THR:HG22	2.14	0.47
1:CA:2332:C:H5'	1:CA:2336:A:N6	2.29	0.47
9:GI:55:PRO:HB2	9:GI:71:LYS:CD	2.44	0.47
1:AA:1970:A:H4'	1:AA:1971:U:OP1	2.14	0.47
31:G4:2:LYS:HD3	31:G4:4:ARG:HH22	1.79	0.47
10:GJ:64:VAL:O	10:GJ:65:THR:HG22	2.14	0.47
6:EF:134:GLN:HE22	6:EF:149:ARG:HB3	1.80	0.47
41:FI:6:TYR:CD1	41:FI:89:GLU:CB	2.97	0.47
20:AT:28:ASN:OD1	20:AT:29:THR:HB	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DI:11:ARG:HG3	41:DI:106:ARG:HE	1.79	0.47
12:AL:82:LEU:HB2	12:AL:90:VAL:HG21	1.97	0.47
1:AA:2682:A:C8	4:AD:11:MET:CG	2.97	0.47
25:AY:6:LEU:CD1	25:AY:56:LEU:HD11	2.45	0.47
34:DB:209:VAL:HG23	34:DB:210:THR:N	2.29	0.47
7:AG:84:LYS:HG2	7:AG:85:LYS:N	2.29	0.47
54:HV:221:ASN:HA	54:HV:224:GLU:CB	2.45	0.47
36:HD:3:ARG:NH2	36:HD:115:ARG:HE	2.12	0.47
33:BA:993:G:H22	33:BA:996:A:H62	1.63	0.47
33:DA:562:U:C4	33:DA:884:U:C5	3.02	0.47
1:GA:481:G:C4	1:GA:507:A:C2	3.01	0.47
45:HM:106:ALA:HB3	45:HM:110:LYS:CD	2.44	0.47
6:EF:39:VAL:HG13	6:EF:40:GLY:N	2.29	0.47
10:GJ:73:VAL:HG23	10:GJ:74:TYR:N	2.30	0.47
33:DA:1366:C:O2'	42:DJ:62:ARG:NH2	2.47	0.47
7:GG:97:VAL:HG23	7:GG:124:CYS:SG	2.54	0.47
4:CD:172:VAL:HG23	4:CD:194:PRO:HD3	1.96	0.47
1:AA:608:A:C6	1:AA:609:A:C6	3.02	0.47
33:BA:874:G:C5	33:BA:875:U:C5	3.02	0.47
26:AZ:38:GLU:HG3	26:AZ:43:ILE:HD12	1.96	0.47
33:HA:701:U:H5''	33:HA:703:G:O4'	2.14	0.47
1:CA:2537:U:H2'	1:CA:2538:C:C6	2.49	0.47
1:GA:901:C:O2'	1:GA:902:C:P	2.73	0.47
1:GA:1720:U:H2'	1:GA:1721:G:O4'	2.15	0.47
1:CA:979:A:H2'	1:CA:982:C:H42	1.78	0.47
33:FA:832:G:C2	33:FA:833:G:C8	3.03	0.47
33:BA:1162:C:H2'	33:BA:1163:A:C8	2.49	0.47
1:CA:2899:A:H2'	1:CA:2900:A:C8	2.49	0.47
35:DC:118:ASP:O	35:DC:121:THR:HG22	2.14	0.47
33:FA:1021:A:C2'	33:FA:1022:A:H5'	2.44	0.47
25:EY:15:ASN:O	25:EY:19:LEU:HB2	2.14	0.47
1:EA:404:A:H1'	1:EA:405:U:OP2	2.14	0.47
1:EA:2071:A:H2'	1:EA:2072:C:C6	2.49	0.47
1:CA:78:U:H2'	1:CA:79:C:C6	2.50	0.47
3:GC:28:PRO:HG2	3:GC:33:LEU:HD11	1.97	0.47
1:EA:1885:A:H2'	1:EA:1886:U:O4'	2.14	0.47
1:CA:2577:A:H5''	1:CA:2578:G:H5'	1.96	0.47
33:DA:995:C:N3	33:DA:1046:A:O2'	2.45	0.47
1:CA:273:G:N2	1:CA:365:U:C2	2.82	0.47
40:HH:78:VAL:HG11	40:HH:125:ILE:HD11	1.95	0.47
22:AV:76:ASP:OD1	22:AV:77:VAL:N	2.48	0.47
1:AA:1219:U:H2'	1:AA:1220:G:H8	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:490:C:H2'	33:BA:491:G:H8	1.79	0.47
33:HA:880:C:OP1	44:HL:5:ASN:ND2	2.45	0.47
2:EB:28:C:OP1	15:EO:31:THR:HG21	2.14	0.47
52:HT:28:MET:HE1	52:HT:67:ILE:CD1	2.44	0.47
5:EE:76:PRO:HA	5:EE:82:GLY:HA3	1.96	0.47
1:AA:2452:C:C4	1:AA:2453:A:C6	3.03	0.47
54:BV:195:ASP:OD1	54:BV:196:ALA:N	2.46	0.47
15:AO:38:GLN:HB3	15:AO:47:VAL:HG21	1.96	0.47
48:HP:63:GLN:N	48:HP:63:GLN:OE1	2.47	0.47
7:GG:10:VAL:O	7:GG:10:VAL:HG23	2.14	0.47
6:EF:30:VAL:HA	6:EF:157:THR:HG22	1.96	0.47
1:GA:806:C:C2	1:GA:807:U:C5	3.02	0.47
10:GJ:3:THR:HG21	17:GQ:60:TRP:HE1	1.79	0.47
17:EQ:91:ARG:NH2	17:EQ:93:ILE:HD13	2.29	0.47
54:DV:514:GLN:HA	54:DV:587:ASP:O	2.14	0.47
1:GA:2336:A:H61	23:GW:40:ARG:HB2	1.79	0.47
23:GW:51:GLY:HA3	23:GW:59:PHE:CZ	2.49	0.47
33:DA:1002:G:C2	33:DA:1003:G:C4	3.03	0.47
43:BK:82:LEU:HD13	43:BK:105:PHE:CE1	2.48	0.47
1:GA:142:A:C2	20:GT:2:ILE:HG12	2.49	0.47
9:GI:79:LEU:HD22	9:GI:85:ILE:HD11	1.96	0.47
40:BH:10:MET:CE	40:BH:33:LYS:HA	2.45	0.47
11:GK:24:VAL:HG13	11:GK:33:ALA:HB2	1.96	0.47
50:DR:22:ASP:OD1	50:DR:24:LYS:HE3	2.14	0.47
18:AR:54:VAL:CG2	18:AR:57:GLY:HA3	2.44	0.47
6:GF:114:ARG:HD2	6:GF:114:ARG:N	2.29	0.47
41:HI:41:ARG:HA	41:HI:45:ARG:HD3	1.97	0.47
35:HC:42:TYR:CZ	35:HC:46:GLU:HG3	2.50	0.47
35:BC:123:GLN:HB3	35:BC:128:VAL:CG1	2.44	0.47
1:EA:1079:C:H2'	1:EA:1080:A:H5'	1.95	0.47
33:BA:1181:G:C2	33:BA:1182:G:N2	2.83	0.47
1:GA:1383:A:N7	1:GA:1384:A:C5	2.82	0.47
20:ET:40:LYS:HA	20:ET:43:ILE:HG23	1.97	0.47
49:FQ:62:ARG:HG2	49:FQ:76:VAL:HG13	1.96	0.47
2:CB:12:C:C5	23:CW:72:GLY:HA3	2.49	0.47
33:FA:842:U:H3'	33:FA:843:U:C5'	2.44	0.47
1:AA:2615:U:H1'	27:A0:3:GLN:HB3	1.96	0.47
1:CA:1485:U:H3	1:CA:1504:A:H61	1.61	0.47
41:HI:11:ARG:H	41:HI:81:HIS:HD2	1.61	0.47
34:HB:67:LEU:HD12	34:HB:157:PRO:CG	2.44	0.47
1:CA:2698:U:H2'	1:CA:2699:C:H6	1.79	0.47
33:FA:70:U:HO2'	33:FA:71:A:H8	1.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:76:G:H1	33:BA:93:U:H3	1.61	0.47
1:GA:1061:U:N1	9:GI:9:LYS:HD2	2.30	0.47
2:CB:7:G:H5''	15:CO:29:HIS:CD2	2.49	0.47
26:CZ:40:THR:OG1	26:CZ:41:PRO:HD2	2.13	0.47
1:AA:2661:G:H2'	1:AA:2662:A:O4'	2.14	0.47
54:HV:169:LEU:HB2	54:HV:263:LEU:HB3	1.96	0.47
1:CA:419:U:H2'	1:CA:420:C:C6	2.49	0.47
52:HT:62:ALA:HA	52:HT:67:ILE:HG22	1.96	0.47
30:C3:41:ARG:HG3	30:C3:44:ARG:NH2	2.29	0.47
1:AA:39:G:N2	1:AA:441:U:C2	2.82	0.47
1:GA:48:G:N2	1:GA:177:G:H21	2.12	0.47
1:CA:2622:U:O2'	1:CA:2825:G:N7	2.47	0.47
1:AA:20:C:O2'	1:AA:21:A:H5'	2.14	0.47
33:DA:597:G:C2	33:DA:644:U:C2	3.03	0.47
1:EA:2505:G:HO2'	1:EA:2506:U:H6	1.61	0.47
44:BL:7:LEU:HD23	49:BQ:34:TYR:CE1	2.49	0.47
27:G0:33:SER:OG	27:G0:35:GLU:HG3	2.15	0.47
1:AA:1285:A:N6	1:AA:1329:U:C6	2.82	0.47
1:EA:1323:C:OP1	19:ES:98:LYS:NZ	2.39	0.47
1:EA:1239:G:P	59:EA:3699:HOH:O	2.72	0.47
54:DV:223:ILE:O	54:DV:227:ALA:N	2.47	0.47
1:GA:307:G:N2	1:GA:310:A:C8	2.82	0.47
1:CA:2031:A:N3	1:CA:2455:G:O2'	2.33	0.47
26:EZ:26:LEU:O	26:EZ:37:ARG:NH1	2.44	0.47
1:EA:1800:C:OP2	3:EC:181:ARG:NH1	2.47	0.47
36:FD:73:ARG:HD3	36:FD:204:TYR:CE2	2.49	0.47
1:CA:684:G:OP1	29:C2:21:ARG:NH1	2.47	0.47
33:HA:399:G:H2'	33:HA:400:C:C6	2.49	0.47
33:BA:86:G:H21	33:BA:87:C:H41	1.62	0.47
9:EI:48:ILE:HG13	9:EI:49:GLU:H	1.78	0.47
20:CT:4:GLU:N	20:CT:4:GLU:OE1	2.48	0.47
41:DI:120:LYS:O	41:DI:121:ALA:HB3	2.13	0.47
1:CA:2070:A:O2'	1:CA:2071:A:H5'	2.14	0.47
39:HG:130:ASN:HB2	39:HG:135:VAL:HG21	1.96	0.47
1:CA:1380:G:N2	1:CA:1570:A:N1	2.62	0.47
1:EA:857:G:H1'	23:EW:19:ARG:HD3	1.96	0.47
1:EA:2330:G:O2'	23:EW:38:ARG:O	2.25	0.47
33:HA:1197:A:OP1	59:HA:1831:HOH:O	2.20	0.47
33:BA:1119:C:OP1	41:BI:85:ARG:NH1	2.45	0.47
1:EA:819:A:C4	1:EA:1189:A:C2	3.03	0.47
16:EP:72:VAL:HG23	16:EP:72:VAL:O	2.15	0.47
45:BM:4:ILE:O	45:BM:6:GLY:N	2.46	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DG:53:ARG:NH2	39:DG:122:ASN:OD1	2.45	0.47
1:CA:301:G:H4'	1:CA:302:C:OP1	2.15	0.47
51:FS:3:ARG:O	51:FS:4:SER:CB	2.61	0.47
33:HA:748:G:C6	33:HA:749:A:C5	3.03	0.47
1:AA:553:G:H2'	1:AA:554:U:O4'	2.15	0.47
1:GA:1392:A:N7	20:GT:19:LYS:HD2	2.29	0.47
33:FA:76:G:C2	33:FA:77:A:H1'	2.50	0.47
4:AD:46:ARG:HB3	4:AD:84:LEU:HB2	1.96	0.47
1:CA:84:A:N1	1:CA:98:G:O2'	2.34	0.47
45:FM:29:ARG:NH2	45:FM:63:PHE:CB	2.77	0.47
33:BA:590:U:H2'	33:BA:591:U:H6	1.79	0.47
1:CA:1936:A:H2	1:CA:1943:U:H5	1.61	0.47
33:BA:1402:C:H2'	33:BA:1403:C:O4'	2.14	0.47
1:GA:381:G:OP1	24:GX:17:ARG:NH2	2.47	0.47
7:CG:68:ARG:HH12	7:CG:72:ASN:HD22	1.63	0.47
33:FA:489:C:H5''	36:FD:128:ARG:NH2	2.30	0.47
1:GA:2286:G:P	28:G1:29:LYS:CE	3.02	0.47
54:FV:130:ALA:HB1	54:FV:137:ARG:CZ	2.44	0.47
54:HV:217:GLU:O	54:HV:220:GLN:N	2.48	0.47
4:ED:182:ALA:O	4:ED:184:ARG:N	2.47	0.47
21:CU:88:ASP:OD2	21:CU:89:GLY:N	2.48	0.47
44:FL:40:THR:HG22	44:FL:41:THR:N	2.29	0.47
1:EA:1416:G:C4	1:EA:1417:C:C5	3.02	0.47
34:HB:187:ASP:OD2	34:HB:202:ASN:HA	2.14	0.47
39:FG:106:GLU:HA	39:FG:109:ARG:NE	2.30	0.47
33:DA:17:U:H2'	33:DA:18:C:C6	2.49	0.47
38:DF:68:GLN:HA	38:DF:71:ILE:CG2	2.45	0.47
14:AN:24:MET:HG2	14:AN:44:LEU:HD22	1.96	0.47
19:GS:26:GLY:H	19:GS:71:VAL:HG23	1.80	0.47
1:EA:2376:A:H2'	1:EA:2377:A:O4'	2.15	0.47
1:EA:1437:C:H2'	1:EA:1438:U:C6	2.48	0.47
50:BR:71:THR:HG23	50:BR:74:HIS:H	1.79	0.47
1:GA:1317:G:C2	1:GA:1336:A:C2	3.03	0.47
33:BA:1025:U:H5''	33:BA:1026:G:H5'	1.97	0.47
5:GE:12:LEU:HD21	5:GE:193:VAL:HB	1.97	0.47
6:AF:39:VAL:HG21	6:AF:42:ALA:HB2	1.97	0.47
20:ET:19:LYS:O	20:ET:20:ALA:C	2.52	0.47
34:DB:32:GLY:O	34:DB:33:ALA:CB	2.63	0.47
32:E5:123:ILE:HG12	32:E5:124:ASP:N	2.30	0.47
20:GT:13:ALA:HB1	25:GY:33:ALA:HB1	1.96	0.47
33:BA:234:C:H2'	33:BA:235:C:H6	1.80	0.47
32:A5:117:LEU:CD2	32:A5:120:ALA:C	2.83	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:995:C:N3	10:GJ:3:THR:OG1	2.48	0.47
3:CC:68:ARG:CD	3:CC:103:ILE:HD11	2.45	0.47
43:DK:35:THR:HG1	43:DK:40:ASN:H	1.59	0.47
54:BV:93:VAL:HG22	54:BV:94:ASP:H	1.80	0.47
9:CI:89:SER:CB	9:CI:135:MET:SD	3.02	0.47
9:GI:57:VAL:HB	9:GI:69:VAL:HB	1.97	0.47
46:BN:26:GLU:HG2	46:BN:27:LEU:HD12	1.95	0.47
9:GI:12:VAL:HG22	9:GI:23:VAL:CG1	2.43	0.47
43:BK:71:ALA:HB1	43:BK:105:PHE:CE2	2.50	0.47
30:G3:23:HIS:CD2	30:G3:49:VAL:HG12	2.50	0.47
33:BA:1493:A:N1	54:BV:591:LEU:HB2	2.29	0.47
44:FL:82:ILE:HG23	44:FL:95:TYR:HB3	1.97	0.47
44:FL:25:GLU:HB2	44:FL:27:CYS:SG	2.54	0.47
18:CR:39:LEU:HD23	18:CR:53:PHE:HD1	1.80	0.47
53:BU:42:THR:HA	53:BU:45:ARG:HB2	1.96	0.47
16:AP:91:VAL:O	16:AP:92:ARG:HG2	2.14	0.47
1:GA:1813:G:N3	3:GC:49:THR:CG2	2.78	0.47
12:CL:57:LEU:CD2	30:C3:53:ASP:HB3	2.45	0.47
50:BR:34:THR:OG1	50:BR:35:GLU:N	2.48	0.47
6:GF:78:ILE:HG21	6:GF:84:ILE:CD1	2.45	0.47
44:BL:3:THR:HG22	44:BL:5:ASN:N	2.29	0.47
34:DB:71:THR:HG23	34:DB:93:HIS:C	2.34	0.47
1:CA:2787:C:H1'	4:CD:63:PRO:HG3	1.97	0.47
36:DD:72:PHE:CE2	36:DD:200:ILE:HD11	2.50	0.47
1:AA:112:U:H2'	1:AA:113:U:H5'	1.96	0.47
1:GA:26:G:C6	1:GA:27:G:N1	2.83	0.47
33:FA:67:C:H2'	33:FA:68:G:C8	2.50	0.47
33:HA:685:G:N1	33:HA:686:U:O4	2.47	0.47
22:GV:72:VAL:HG12	22:GV:93:ARG:HA	1.96	0.47
46:DN:45:VAL:HG23	46:DN:46:LEU:N	2.29	0.47
48:BP:74:LEU:O	48:BP:78:VAL:HG23	2.15	0.47
1:EA:754:U:H2'	1:EA:755:U:C6	2.50	0.47
39:FG:53:ARG:NH2	39:FG:122:ASN:OD1	2.40	0.47
1:EA:1487:U:H5''	33:HA:412:A:C8	2.49	0.47
44:HL:63:VAL:HG21	44:HL:95:TYR:HE1	1.79	0.47
1:GA:547:A:H3'	1:GA:548:G:C5'	2.44	0.47
1:AA:1091:G:H1'	31:A4:12:ARG:NH1	2.30	0.47
38:BF:1:MET:HG3	38:BF:67:PRO:HA	1.96	0.47
2:GB:37:C:C5	2:GB:38:C:C4	3.02	0.47
33:DA:973:G:H3'	33:DA:974:A:H5''	1.97	0.47
1:GA:655:A:H4'	1:GA:656:G:OP1	2.14	0.47
6:GF:151:LEU:HD13	6:GF:153:ILE:HG23	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1219:U:H2'	1:EA:1220:G:C8	2.50	0.47
37:DE:112:ARG:O	37:DE:116:GLU:N	2.40	0.47
4:ED:77:ARG:NH2	4:ED:200:ASP:OD1	2.41	0.47
6:EF:42:ALA:HB1	6:EF:46:LYS:HA	1.96	0.47
33:BA:1248:A:C4	33:BA:1290:G:N2	2.83	0.47
33:HA:1142:G:C2	33:HA:1143:G:H1'	2.50	0.47
18:CR:60:LYS:H	18:CR:100:GLY:HA3	1.79	0.47
33:DA:1452:C:H4'	33:DA:1453:G:O5'	2.15	0.47
33:FA:408:A:OP1	36:FD:110:THR:HG21	2.14	0.47
40:DH:29:SER:HB2	40:DH:59:LEU:HB2	1.95	0.47
1:AA:2523:G:C2'	1:AA:2524:G:H5'	2.44	0.47
30:G3:44:ARG:N	30:G3:45:PRO:HD2	2.30	0.47
33:DA:391:G:C6	33:DA:392:C:C4	3.02	0.47
33:FA:995:C:N3	33:FA:1046:A:O2'	2.46	0.47
33:HA:690:G:H2'	33:HA:691:G:O4'	2.14	0.47
13:CM:47:GLU:OE2	13:CM:51:ARG:NH2	2.47	0.47
12:CL:74:THR:HG22	12:CL:107:PHE:HB2	1.95	0.47
33:FA:184:G:H2'	33:FA:185:U:C6	2.49	0.47
17:GQ:91:ARG:HD3	18:GR:11:GLN:HB2	1.96	0.47
10:EJ:4:PHE:CG	10:EJ:5:THR:N	2.82	0.47
17:EQ:56:PHE:O	17:EQ:59:LEU:N	2.48	0.47
17:EQ:93:ILE:HG23	17:EQ:94:LEU:N	2.28	0.47
41:FI:26:GLY:N	41:FI:59:GLU:OE1	2.44	0.47
1:CA:996:A:H4'	17:CQ:91:ARG:CD	2.44	0.47
41:BI:7:TYR:CG	41:BI:8:GLY:N	2.81	0.47
23:EW:37:VAL:CG1	23:EW:38:ARG:H	2.19	0.47
23:EW:49:ASN:HB2	23:EW:60:ALA:HA	1.96	0.47
16:AP:57:ALA:O	16:AP:58:PHE:HB3	2.13	0.47
1:AA:1084:A:OP2	32:A5:55:VAL:HA	2.14	0.47
33:DA:1130:A:H1'	33:DA:1146:A:C2	2.49	0.47
1:CA:855:G:N3	23:CW:23:LYS:HD2	2.30	0.47
33:DA:1492:A:C2'	33:DA:1493:A:H5''	2.45	0.47
1:AA:279:A:H2'	1:AA:280:U:H5'	1.97	0.47
1:GA:2757:A:N1	7:GG:66:THR:HG21	2.29	0.47
12:EL:85:VAL:HG22	12:EL:94:THR:HG22	1.96	0.47
1:AA:2336:A:N6	23:AW:40:ARG:HB3	2.30	0.47
1:AA:980:A:C4	1:AA:1136:G:O4'	2.68	0.47
38:BF:24:ARG:HA	38:BF:27:ALA:HB3	1.96	0.47
6:AF:11:VAL:CG1	6:AF:171:ALA:HB3	2.43	0.47
9:GI:56:VAL:N	9:GI:71:LYS:HD2	2.30	0.47
6:AF:64:PRO:HG3	6:AF:88:VAL:CG2	2.44	0.47
6:AF:49:LEU:HD11	6:AF:86:CYS:HB3	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:HI:57:MET:HG2	41:HI:58:VAL:H	1.80	0.47
1:AA:2406:A:OP1	59:AA:3558:HOH:O	2.19	0.47
23:AW:45:HIS:HB2	23:AW:50:VAL:HG13	1.97	0.47
6:CF:131:VAL:HG22	6:CF:151:LEU:H	1.79	0.47
9:AI:14:ALA:HB1	9:AI:45:THR:HG22	1.95	0.47
26:CZ:8:GLN:O	26:CZ:9:THR:HG22	2.14	0.47
36:BD:64:ILE:HG22	36:BD:65:TYR:CD1	2.49	0.47
1:AA:961:C:C4	1:AA:2031:A:C5	3.03	0.47
42:FJ:80:THR:O	42:FJ:83:THR:HG22	2.15	0.47
51:FS:5:LEU:O	51:FS:7:LYS:N	2.47	0.47
18:GR:49:ILE:O	18:GR:49:ILE:HG13	2.14	0.47
18:CR:39:LEU:HB3	18:CR:49:ILE:HD13	1.96	0.47
1:EA:2311:A:H3'	1:EA:2312:U:C6	2.49	0.47
22:GV:60:VAL:O	22:GV:61:LEU:HD13	2.15	0.47
1:EA:528:A:C2	1:EA:2042:A:H2'	2.49	0.47
1:AA:1753:G:N2	1:AA:1755:A:H3'	2.30	0.47
2:CB:53:A:O5'	2:CB:53:A:H8	1.98	0.47
54:FV:420:VAL:HG12	54:FV:483:VAL:HG13	1.96	0.47
52:BT:81:ALA:O	52:BT:85:LYS:CG	2.62	0.47
1:AA:2742:G:OP1	31:A4:36:ARG:HD3	2.15	0.47
45:HM:11:ASP:OD1	45:HM:45:ILE:HD13	2.14	0.47
1:AA:1555:G:C2	1:AA:1556:C:C6	3.02	0.47
43:FK:88:GLY:N	43:FK:114:THR:HG22	2.28	0.47
34:DB:72:LYS:HZ2	34:DB:204:ASP:HB3	1.80	0.47
34:BB:69:VAL:CG2	34:BB:162:VAL:HB	2.45	0.47
1:CA:1936:A:C2	1:CA:1943:U:H5	2.33	0.47
5:AE:164:LEU:CB	5:AE:167:VAL:HG13	2.45	0.47
1:AA:2390:U:P	30:A3:34:LYS:HZ1	2.37	0.47
37:BE:156:LYS:HB3	40:BH:71:VAL:HG13	1.95	0.47
1:EA:2039:U:H2'	1:EA:2040:G:C8	2.50	0.47
34:DB:46:VAL:HB	34:DB:47:PRO:HD3	1.96	0.47
54:HV:557:ILE:HG21	54:HV:576:ILE:CD1	2.45	0.47
41:HI:83:ILE:O	41:HI:87:LEU:HD13	2.14	0.47
7:AG:39:ALA:HA	7:AG:57:TYR:CE2	2.49	0.47
6:CF:10:GLU:HA	6:CF:13:LYS:HB2	1.97	0.47
16:CP:4:ILE:O	16:CP:5:LYS:HB3	2.15	0.47
24:EX:36:ARG:HG2	24:EX:47:THR:HG22	1.95	0.47
1:CA:1205:A:C5	5:CE:165:HIS:CD2	3.03	0.47
16:AP:4:ILE:O	16:AP:6:GLN:N	2.48	0.47
37:FE:46:VAL:HG11	37:FE:118:ALA:HB2	1.97	0.47
20:CT:49:LYS:O	20:CT:52:GLU:N	2.48	0.47
1:AA:547:A:H5''	1:AA:548:G:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:GX:70:LEU:HD23	24:GX:73:ARG:HH11	1.78	0.47
33:FA:1232:U:N3	33:FA:1233:G:C8	2.82	0.47
7:GG:8:VAL:HG11	7:GG:49:LEU:HB2	1.97	0.47
1:EA:612:G:O2'	1:EA:613:A:C8	2.68	0.47
1:EA:283:G:C2	1:EA:284:U:H1'	2.50	0.47
19:GS:71:VAL:O	19:GS:71:VAL:HG23	2.15	0.47
32:E5:110:ALA:HB1	32:E5:113:PHE:CE1	2.49	0.47
15:CO:35:ILE:HB	15:CO:102:ARG:NH1	2.29	0.47
19:CS:84:ARG:HB2	19:CS:96:ILE:HG23	1.96	0.47
1:AA:422:A:C2	1:AA:423:A:C4	3.02	0.47
41:DI:91:ASP:CG	41:DI:93:SER:HB3	2.35	0.47
33:BA:1348:U:H4'	41:BI:122:ARG:HG3	1.96	0.47
1:GA:271:G:H4'	1:GA:272:A:OP1	2.15	0.47
15:GO:81:ARG:O	15:GO:84:GLU:HB3	2.14	0.47
33:FA:104:G:OP2	52:FT:13:GLN:NE2	2.42	0.47
16:EP:17:PRO:HG3	16:EP:83:ILE:O	2.15	0.47
54:DV:200:VAL:HG23	54:DV:201:THR:HG23	1.95	0.47
54:BV:236:LYS:HE2	54:BV:241:GLU:HG3	1.96	0.47
1:CA:1178:C:N4	1:CA:1179:G:O6	2.48	0.47
48:BP:77:GLU:C	48:BP:79:ASN:H	2.18	0.47
48:DP:46:LYS:CE	48:DP:48:GLU:H	2.27	0.47
33:FA:658:C:H2'	33:FA:659:U:H6	1.79	0.47
33:DA:164:G:C2	33:DA:165:G:C8	3.03	0.47
1:GA:1760:C:H2'	1:GA:1761:C:O4'	2.14	0.47
54:BV:539:ASP:OD2	54:BV:577:ARG:NE	2.41	0.47
12:GL:56:PRO:HD2	12:GL:59:ARG:HB2	1.97	0.47
5:GE:28:VAL:HG23	12:GL:6:LEU:HD21	1.96	0.47
9:CI:104:GLN:HA	9:CI:108:ILE:HD12	1.97	0.47
54:BV:31:LEU:HA	54:BV:34:THR:HG22	1.96	0.47
21:AU:70:ALA:CB	21:AU:79:ALA:HB1	2.44	0.47
33:HA:791:G:C6	33:HA:792:A:N7	2.82	0.47
9:CI:109:ALA:CB	9:CI:128:ILE:HG13	2.43	0.47
33:FA:279:A:H8	33:FA:279:A:H5'	1.80	0.47
23:GW:72:GLY:N	23:GW:73:PRO:CD	2.78	0.47
1:AA:714:U:H5'	1:AA:715:A:OP2	2.14	0.47
1:AA:118:A:N3	1:AA:178:G:H1'	2.29	0.47
14:CN:24:MET:HE2	14:CN:44:LEU:HD13	1.97	0.47
38:BF:46:GLN:OE1	38:BF:55:HIS:HB3	2.15	0.47
1:AA:1000:A:OP1	59:AA:3726:HOH:O	2.21	0.47
32:A5:88:HIS:CB	32:A5:89:PRO:HD3	2.44	0.47
1:EA:2711:A:OP2	59:EA:3545:HOH:O	2.20	0.47
45:FM:43:VAL:HG13	45:FM:47:GLU:HG2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:GN:67:PHE:O	14:GN:71:ARG:HD2	2.15	0.47
54:HV:430:LYS:HG2	54:HV:479:VAL:CG2	2.45	0.47
38:DF:61:LEU:HD12	38:DF:62:MET:H	1.79	0.47
1:AA:219:A:N3	1:AA:234:U:O2'	2.45	0.47
52:HT:6:SER:C	52:HT:8:LYS:H	2.17	0.47
33:FA:1331:G:O2'	33:FA:1332:A:P	2.72	0.47
4:CD:22:ILE:HG23	4:CD:190:LYS:HD2	1.96	0.47
1:CA:1392:A:C6	1:CA:1393:A:C6	3.02	0.47
33:FA:1375:A:P	39:FG:28:ASN:HD22	2.38	0.47
1:GA:2636:C:H2'	1:GA:2637:U:C6	2.49	0.47
34:FB:170:ILE:H	34:FB:170:ILE:HD12	1.80	0.47
1:GA:1996:C:OP1	11:GK:31:ARG:NE	2.47	0.47
7:CG:163:TYR:O	7:CG:164:ALA:HB3	2.14	0.47
33:HA:1513:A:H2'	33:HA:1514:G:H8	1.80	0.47
23:EW:37:VAL:HB	23:EW:38:ARG:NH1	2.29	0.47
33:HA:982:U:H4'	33:HA:983:A:O5'	2.14	0.47
48:BP:28:ARG:HG2	48:BP:28:ARG:HH21	1.80	0.47
1:GA:1131:G:C5	10:GJ:77:HIS:CE1	3.03	0.47
23:AW:8:SER:O	23:AW:9:THR:HG22	2.15	0.47
36:BD:36:GLN:O	36:BD:37:ALA:HB2	2.14	0.47
1:AA:2352:A:N1	23:AW:30:VAL:HG11	2.30	0.47
43:BK:34:ILE:HB	43:BK:74:VAL:HG11	1.96	0.47
1:AA:1654:A:O2'	4:AD:118:PHE:CD2	2.66	0.47
1:GA:834:G:H8	1:GA:834:G:O5'	1.97	0.47
10:AJ:77:HIS:CD2	10:AJ:79:GLY:H	2.33	0.47
1:CA:511:U:C5	1:CA:512:G:C5	3.02	0.47
1:EA:1913:A:H4'	1:EA:1914:C:H5''	1.97	0.47
43:BK:13:ARG:O	43:BK:15:GLN:N	2.48	0.47
1:AA:2481:G:O2'	1:AA:2482:A:H8	1.97	0.47
9:GI:85:ILE:HD12	9:GI:100:ILE:HG21	1.95	0.47
34:FB:70:GLY:CA	34:FB:163:ILE:HG22	2.45	0.47
33:HA:747:A:C6	33:HA:748:G:C6	3.03	0.47
37:FE:157:ARG:HD2	40:FH:43:GLU:O	2.15	0.47
33:HA:51:A:N7	33:HA:114:U:O2'	2.47	0.47
19:ES:59:GLU:HA	19:ES:64:ALA:CB	2.45	0.47
49:FQ:59:VAL:CG2	49:FQ:75:LEU:CD1	2.93	0.47
1:CA:221:A:C4	1:CA:266:G:N7	2.83	0.47
1:AA:1474:U:H2'	1:AA:1475:G:H5'	1.95	0.47
34:DB:207:ARG:HG3	34:DB:208:ALA:N	2.30	0.47
54:HV:494:ILE:HD13	54:HV:494:ILE:H	1.79	0.47
12:EL:122:VAL:HG22	12:EL:142:ILE:HG12	1.96	0.47
54:HV:382:ILE:O	54:HV:382:ILE:HD12	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:652:U:O3'	40:BH:56:LYS:NZ	2.44	0.47
1:GA:2267:A:H5''	1:GA:2268:A:H5'	1.95	0.47
9:EI:33:ASN:CB	9:EI:65:SER:HA	2.44	0.47
33:DA:1451:U:O2'	33:DA:1452:C:OP1	2.26	0.47
1:EA:995:C:H6	1:EA:995:C:H5'	1.80	0.47
1:AA:1441:G:H2'	1:AA:1442:U:C6	2.50	0.47
35:DC:106:VAL:HG23	35:DC:106:VAL:O	2.15	0.47
1:CA:2901:C:N4	1:CA:2902:C:N4	2.63	0.47
2:CB:94:A:OP2	59:CB:1314:HOH:O	2.21	0.47
1:GA:553:G:H2'	1:GA:554:U:O4'	2.14	0.47
1:GA:1283:G:N2	1:GA:1285:A:H3'	2.30	0.47
45:HM:95:LEU:C	45:HM:109:ARG:HG2	2.34	0.47
33:DA:512:U:H2'	33:DA:513:C:C6	2.49	0.47
36:DD:174:ASP:O	36:DD:175:ALA:HB2	2.14	0.47
1:AA:2509:G:C5	1:AA:2510:C:C5	3.03	0.47
1:GA:1681:G:O2'	1:GA:1762:A:N3	2.41	0.47
9:CI:12:VAL:HG21	9:CI:41:PHE:HE1	1.80	0.47
54:DV:31:LEU:HA	54:DV:34:THR:HG22	1.95	0.47
1:CA:1916:A:H2'	1:CA:1917:U:O4'	2.14	0.47
54:BV:525:LEU:HD21	54:BV:535:GLU:HB2	1.96	0.47
41:DI:38:TYR:HD2	41:DI:39:PHE:CD2	2.33	0.47
33:FA:976:G:H2'	33:FA:1362:A:N1	2.29	0.47
1:GA:747:U:C4	1:GA:2613:U:C4	3.02	0.47
1:EA:42:A:H2'	1:EA:43:G:H5'	1.97	0.47
35:BC:184:TYR:OH	35:BC:199:LYS:HD3	2.14	0.47
1:EA:2287:A:C8	1:EA:2289:G:C8	3.02	0.47
13:AM:23:GLY:O	13:AM:101:VAL:HG12	2.15	0.47
45:BM:49:SER:HB2	45:BM:52:GLN:HB2	1.96	0.47
33:FA:255:G:C6	33:FA:256:U:C4	3.03	0.47
1:AA:2632:A:C2	1:AA:2633:G:C5	3.03	0.47
39:FG:9:GLN:OE1	39:FG:9:GLN:N	2.48	0.47
34:BB:125:PHE:CG	34:BB:125:PHE:O	2.67	0.47
15:EO:36:TYR:N	15:EO:36:TYR:CD1	2.83	0.47
35:BC:54:ARG:HB3	35:BC:69:HIS:HB2	1.97	0.47
1:CA:2105:U:H2'	1:CA:2106:U:C6	2.49	0.47
23:GW:40:ARG:HG3	23:GW:56:HIS:CD2	2.50	0.47
23:AW:44:PHE:CE2	23:AW:76:ARG:HD3	2.50	0.47
1:GA:1056:G:H5''	1:GA:1057:A:O4'	2.15	0.47
9:GI:58:ILE:HG23	9:GI:66:PHE:CE2	2.50	0.47
1:AA:1070:A:H5'	1:AA:1072:C:OP2	2.14	0.47
33:HA:668:G:HO2'	47:HO:46:HIS:HD1	1.62	0.47
42:FJ:35:GLN:HG2	42:FJ:78:GLU:N	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:GF:11:VAL:HG11	6:GF:96:TRP:CH2	2.50	0.47
6:AF:90:LEU:HB3	6:AF:95:MET:HA	1.97	0.47
1:AA:2787:C:H1'	4:AD:63:PRO:HG3	1.96	0.47
1:GA:1069:A:O2'	1:GA:1070:A:OP2	2.30	0.47
6:GF:112:ASP:O	6:GF:114:ARG:NE	2.47	0.47
1:CA:2210:U:H4'	1:CA:2211:A:H5'	1.97	0.47
1:CA:1993:U:H4'	4:CD:133:THR:CG2	2.45	0.47
33:BA:1216:A:H5''	46:BN:5:SER:HB3	1.97	0.47
14:AN:55:ALA:HB2	14:AN:79:LEU:HB3	1.97	0.47
34:FB:83:ALA:HA	34:FB:88:GLN:HE21	1.80	0.47
11:CK:108:ARG:HH21	16:CP:34:GLY:HA3	1.78	0.47
33:DA:841:C:N3	33:DA:843:U:C6	2.83	0.47
1:AA:1476:U:C5	1:AA:1514:G:N2	2.82	0.47
5:AE:113:VAL:HG12	5:AE:118:LEU:HD12	1.97	0.47
33:HA:451:A:C2	33:HA:480:U:C4	3.02	0.47
1:CA:1387:A:H5'	1:CA:1469:A:H1'	1.97	0.47
41:HI:44:ALA:O	41:HI:47:VAL:HG22	2.14	0.47
42:FJ:10:LEU:HG	42:FJ:98:VAL:HG22	1.96	0.47
30:A3:33:THR:HG23	30:A3:34:LYS:N	2.29	0.47
33:BA:1401:G:C6	33:BA:1402:C:C2	3.03	0.47
33:BA:481:G:HO2'	33:BA:482:A:H8	1.59	0.47
1:GA:644:A:H2'	1:GA:645:C:O4'	2.15	0.47
1:AA:1808:A:N1	24:AX:27:ARG:HD2	2.29	0.47
10:EJ:118:MET:HA	10:EJ:121:LYS:HE2	1.97	0.47
33:DA:927:G:N2	33:DA:1391:U:H1'	2.30	0.47
38:FF:86:ARG:NH2	50:FR:64:TYR:HB3	2.30	0.47
6:AF:121:PHE:HB3	6:AF:162:ASP:OD2	2.15	0.47
54:DV:36:VAL:HG12	54:DV:37:ASN:H	1.79	0.47
53:FU:10:GLU:H	53:FU:11:PRO:HD3	1.80	0.47
33:DA:521:G:OP2	44:DL:51:LYS:NZ	2.40	0.47
48:BP:46:LYS:HG3	48:BP:47:GLU:N	2.30	0.47
33:DA:625:U:H4'	48:DP:16:PHE:CE2	2.50	0.47
34:DB:9:LEU:HG	34:DB:42:LEU:HD13	1.97	0.47
46:BN:73:PHE:CZ	46:BN:78:GLY:HA2	2.49	0.47
4:CD:70:LYS:O	4:CD:71:ALA:CB	2.63	0.47
33:BA:720:C:N4	33:BA:721:G:C2	2.83	0.47
33:HA:1113:C:H4'	35:HC:14:ILE:HG21	1.97	0.47
30:E3:22:LYS:HA	30:E3:47:ALA:O	2.15	0.47
1:CA:1447:C:H2'	1:CA:1448:G:C8	2.49	0.47
1:AA:570:G:H2'	1:AA:2030:A:N7	2.30	0.47
14:CN:78:LYS:HE2	14:CN:83:LEU:HD11	1.96	0.47
35:DC:97:VAL:HB	35:DC:98:PRO:HD2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:GK:108:ARG:NH1	11:GK:113:MET:HE1	2.29	0.47
54:DV:138:ILE:HG12	54:DV:286:LEU:HD21	1.97	0.47
33:BA:8:A:C5	36:BD:206:LYS:HB3	2.50	0.47
12:EL:87:GLY:O	12:EL:89:VAL:N	2.48	0.47
22:AV:75:GLN:HB2	22:AV:92:VAL:HG22	1.97	0.47
1:AA:71:A:C2	1:AA:73:A:C2	3.03	0.47
12:AL:23:ILE:HD12	18:AR:84:ARG:NE	2.30	0.47
54:HV:544:VAL:HG12	54:HV:545:ILE:N	2.29	0.47
16:CP:85:VAL:HG13	16:CP:86:LYS:N	2.30	0.47
45:HM:34:LEU:HD22	45:HM:39:ILE:HB	1.96	0.47
2:AB:78:A:H2'	2:AB:79:G:O4'	2.14	0.47
33:FA:1428:A:H2'	33:FA:1429:A:O4'	2.15	0.47
11:AK:66:LYS:HA	11:AK:79:PHE:O	2.15	0.47
10:CJ:32:LEU:O	10:CJ:36:LEU:HB2	2.14	0.47
19:ES:24:ILE:HG22	19:ES:71:VAL:HG21	1.97	0.47
11:EK:14:SER:HB2	11:EK:95:ILE:HD11	1.96	0.47
43:HK:46:THR:OG1	43:HK:47:ALA:N	2.40	0.47
20:AT:54:GLU:HG3	20:AT:88:LYS:HB2	1.96	0.47
3:AC:78:GLU:OE1	3:AC:100:ARG:NH1	2.47	0.47
1:AA:1796:U:H2'	1:AA:1797:G:C8	2.50	0.47
39:FG:113:ASP:N	39:FG:113:ASP:OD1	2.46	0.47
24:CX:29:LEU:H	24:CX:29:LEU:HD22	1.80	0.47
1:GA:1164:C:H2'	1:GA:1165:A:H8	1.79	0.47
23:EW:18:LYS:H	23:EW:36:ILE:N	2.13	0.47
1:AA:971:G:OP2	1:AA:974:G:N2	2.48	0.47
23:GW:40:ARG:HG2	23:GW:52:CYS:SG	2.55	0.47
1:GA:1095:A:C4	54:HV:628:THR:O	2.68	0.47
38:BF:3:HIS:H	38:BF:92:THR:HG23	1.80	0.47
1:AA:2352:A:C6	23:AW:30:VAL:HG11	2.50	0.47
14:CN:71:ARG:CG	14:CN:71:ARG:HH21	2.28	0.47
1:CA:980:A:C6	1:CA:981:A:N1	2.83	0.47
18:AR:8:GLY:O	18:AR:10:LYS:HE3	2.14	0.47
23:AW:49:ASN:ND2	23:AW:59:PHE:O	2.46	0.47
44:FL:94:ARG:HB2	44:FL:95:TYR:CE1	2.50	0.47
1:EA:2478:A:P	31:E4:2:LYS:HZ1	2.37	0.47
4:ED:108:ASP:N	4:ED:204:LYS:O	2.48	0.47
45:BM:4:ILE:HG13	45:BM:4:ILE:O	2.15	0.47
1:AA:563:A:C4	1:AA:2018:G:C2	3.03	0.47
1:AA:2211:A:O2'	1:AA:2212:A:OP1	2.25	0.47
7:AG:25:ILE:HD12	7:AG:74:MET:HB2	1.97	0.47
2:CB:53:A:H2'	2:CB:54:G:O4'	2.15	0.47
23:CW:75:ASN:OD1	23:CW:76:ARG:N	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DM:4:ILE:HA	45:DM:57:ARG:HG3	1.97	0.47
44:HL:24:LEU:HG	44:HL:25:GLU:N	2.30	0.47
7:AG:12:ALA:CB	1:EA:2790:U:H2'	2.45	0.47
1:CA:2286:G:H5''	1:CA:2287:A:O4'	2.15	0.47
20:CT:29:THR:HA	20:CT:86:THR:HA	1.97	0.47
41:BI:94:LEU:O	41:BI:96:SER:N	2.42	0.47
1:AA:221:A:C4	1:AA:266:G:N7	2.83	0.47
52:FT:28:MET:HG3	52:FT:29:ARG:N	2.30	0.47
33:BA:1296:C:O3'	33:BA:1302:C:N4	2.48	0.47
23:GW:67:LYS:O	23:GW:68:PHE:HB2	2.15	0.47
2:AB:3:C:H2'	2:AB:4:C:C6	2.50	0.47
1:GA:1257:C:O2'	5:GE:79:ARG:N	2.48	0.47
2:CB:98:G:N1	22:CV:14:LYS:HE3	2.30	0.47
12:GL:66:PHE:CD1	12:GL:66:PHE:C	2.87	0.47
10:AJ:73:VAL:HG23	10:AJ:74:TYR:N	2.30	0.47
38:DF:92:THR:O	38:DF:93:LYS:HG2	2.15	0.47
1:GA:27:G:N2	1:GA:512:G:H1'	2.30	0.47
32:A5:51:TYR:CD1	32:A5:51:TYR:C	2.89	0.47
1:AA:834:G:C6	1:AA:835:C:C4	3.03	0.47
32:E5:51:TYR:HE2	32:E5:90:GLY:HA3	1.79	0.47
1:EA:1854:A:H2	1:EA:2087:G:N3	2.13	0.47
1:AA:927:A:O2'	26:AZ:38:GLU:OE1	2.27	0.47
26:EZ:35:VAL:HG22	26:EZ:37:ARG:CZ	2.45	0.47
1:EA:1486:U:H2'	1:EA:1487:U:C6	2.50	0.47
1:EA:1964:G:H4'	1:EA:1965:C:OP2	2.15	0.47
6:AF:107:VAL:HG11	6:AF:175:PRO:HG2	1.95	0.47
33:DA:402:G:H5'	36:DD:71:GLN:NE2	2.30	0.47
7:AG:72:ASN:OD1	7:AG:76:ILE:HD11	2.15	0.47
52:DT:44:LYS:HB2	52:DT:87:ALA:HB1	1.97	0.47
43:DK:38:GLN:NE2	39:HG:67:GLU:OE2	2.46	0.47
54:FV:450:ASP:O	54:FV:454:ASN:ND2	2.48	0.47
7:EG:18:ILE:HD12	7:EG:19:ASN:N	2.30	0.47
1:AA:1747:U:H2'	1:AA:1748:C:C6	2.50	0.47
1:AA:1486:U:H2'	1:AA:1487:U:C6	2.50	0.47
35:BC:175:LEU:HD11	35:BC:201:TRP:HD1	1.79	0.47
1:AA:674:G:H1'	5:AE:69:ARG:CD	2.46	0.47
33:DA:254:G:O3'	49:DQ:71:LYS:NZ	2.48	0.47
1:GA:864:G:C6	1:GA:865:C:N4	2.83	0.47
9:GI:91:LYS:HB2	9:GI:95:ASP:OD1	2.15	0.47
1:CA:2064:C:H2'	1:CA:2065:C:C6	2.49	0.47
54:BV:33:TYR:CE1	54:BV:199:GLY:HA3	2.50	0.47
33:DA:919:A:O2'	33:DA:920:U:H5'	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:6:MET:SD	46:DN:9:ARG:CZ	3.03	0.47
54:DV:11:ARG:HE	54:DV:283:ILE:HA	1.79	0.47
1:EA:2773:C:H2'	1:EA:2774:C:H6	1.80	0.47
22:EV:9:ARG:NH2	22:EV:12:GLN:HA	2.30	0.47
1:EA:1381:G:H2'	1:EA:1382:G:H5'	1.97	0.47
19:AS:13:SER:O	19:AS:14:ALA:CB	2.62	0.47
1:CA:1223:G:N2	1:CA:1226:A:OP2	2.39	0.47
17:AQ:63:ARG:HH12	17:AQ:96:ASP:CA	2.28	0.46
1:EA:570:G:OP1	1:EA:972:A:O2'	2.20	0.46
23:EW:18:LYS:H	23:EW:36:ILE:CA	2.28	0.46
23:EW:23:LYS:HE2	23:EW:24:ARG:CA	2.45	0.46
33:HA:1107:C:C4	33:HA:1108:G:C8	3.03	0.46
1:CA:1913:A:N6	33:DA:1494:G:H5'	2.26	0.46
1:GA:1926:U:C6	1:GA:1926:U:C3'	2.98	0.46
33:FA:1305:G:HO2'	33:FA:1306:A:H8	1.62	0.46
23:AW:35:ILE:HA	23:AW:57:THR:HG23	1.97	0.46
36:HD:124:MET:HG3	36:HD:144:SER:OG	2.15	0.46
33:HA:60:A:OP1	33:HA:111:G:N2	2.37	0.46
6:AF:11:VAL:HG12	6:AF:15:LEU:HD12	1.96	0.46
6:AF:7:TYR:HD1	6:AF:172:PHE:CZ	2.33	0.46
1:AA:2312:U:C4	1:AA:2313:C:C5	3.03	0.46
1:EA:1664:A:C2	1:EA:2726:A:C8	3.03	0.46
1:AA:1328:A:H2'	1:AA:1330:C:C5	2.50	0.46
1:EA:2392:A:C8	1:EA:2429:G:C2	3.03	0.46
53:HU:40:LYS:N	53:HU:41:PRO:CD	2.79	0.46
42:HJ:7:ARG:HG3	42:HJ:75:ASP:HA	1.97	0.46
52:BT:4:ILE:O	52:BT:4:ILE:HG22	2.15	0.46
4:ED:107:VAL:H	4:ED:206:ALA:H	1.62	0.46
44:BL:44:LYS:HB3	44:BL:45:PRO:CD	2.45	0.46
1:AA:1057:A:C6	1:AA:1086:A:C2	3.02	0.46
36:FD:3:ARG:CZ	36:FD:115:ARG:NE	2.78	0.46
1:CA:1248:G:OP2	5:CE:44:ARG:NH1	2.44	0.46
20:CT:50:LEU:O	20:CT:51:PHE:HB2	2.15	0.46
34:FB:49:PHE:HB2	34:FB:212:TYR:CE2	2.50	0.46
1:AA:171:U:H2'	1:AA:172:A:C8	2.49	0.46
41:BI:24:GLY:H	41:BI:61:LEU:HA	1.79	0.46
1:AA:1534:U:H5'	1:AA:1535:A:P	2.54	0.46
1:AA:320:A:C4	5:AE:131:THR:HG21	2.50	0.46
16:GP:19:PHE:CE1	16:GP:83:ILE:HD11	2.50	0.46
3:AC:16:VAL:N	3:AC:203:VAL:CG1	2.78	0.46
9:EI:19:PRO:HD2	9:EI:23:VAL:HG21	1.96	0.46
1:AA:235:U:H2'	1:AA:236:C:C6	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FL:114:ARG:NH2	44:FL:121:ARG:HA	2.31	0.46
36:FD:110:THR:HG23	36:FD:113:GLU:H	1.80	0.46
4:CD:14:ILE:HG13	4:CD:14:ILE:O	2.14	0.46
35:BC:175:LEU:HD11	35:BC:201:TRP:CD1	2.50	0.46
1:CA:1226:A:OP1	17:CQ:15:LYS:NZ	2.36	0.46
8:GH:41:LYS:HA	8:GH:44:ILE:HG12	1.97	0.46
39:FG:59:LEU:O	39:FG:62:PHE:HB3	2.15	0.46
1:GA:883:G:N2	1:GA:894:U:H1'	2.30	0.46
7:CG:22:VAL:HG22	7:CG:36:LEU:CD1	2.45	0.46
33:BA:449:G:H2'	33:BA:450:G:C8	2.49	0.46
24:CX:52:ALA:O	24:CX:53:LYS:HB3	2.15	0.46
1:AA:47:C:C4	1:AA:48:G:N7	2.83	0.46
1:CA:2280:G:C2	1:CA:2281:A:C8	3.03	0.46
26:AZ:26:LEU:O	26:AZ:37:ARG:NH1	2.46	0.46
1:GA:1659:G:C6	1:GA:2002:G:C6	3.03	0.46
1:EA:875:G:C2'	1:EA:876:C:H5'	2.45	0.46
46:BN:45:VAL:HG23	46:BN:46:LEU:H	1.79	0.46
39:BG:74:GLU:O	39:BG:89:VAL:N	2.42	0.46
4:CD:99:GLU:HG3	4:CD:100:LEU:N	2.30	0.46
34:FB:117:GLU:HA	34:FB:120:SER:HB2	1.97	0.46
41:FI:91:ASP:OD1	41:FI:94:LEU:HD13	2.15	0.46
1:GA:2804:U:H2'	1:GA:2805:C:C6	2.49	0.46
1:EA:336:C:H2'	1:EA:337:C:H6	1.80	0.46
12:AL:57:LEU:CD1	30:A3:53:ASP:HB3	2.46	0.46
24:GX:29:LEU:H	24:GX:29:LEU:HD23	1.80	0.46
1:EA:1257:C:O2'	5:EE:79:ARG:N	2.48	0.46
13:GM:1:MET:O	13:GM:2:LEU:HB2	2.16	0.46
33:DA:376:G:H2'	33:DA:377:G:H8	1.79	0.46
33:DA:1194:U:H5'	37:DE:27:GLY:HA2	1.95	0.46
1:EA:2576:G:O2'	1:EA:2579:C:OP2	2.22	0.46
1:EA:1183:U:H2'	1:EA:1184:U:C6	2.50	0.46
14:AN:52:ILE:HB	14:AN:94:TYR:CD2	2.50	0.46
51:BS:80:TYR:CD1	51:BS:81:ARG:N	2.84	0.46
24:AX:52:ALA:O	24:AX:53:LYS:HB3	2.15	0.46
40:FH:29:SER:HB2	40:FH:59:LEU:HB2	1.97	0.46
44:BL:63:VAL:HG22	44:BL:64:THR:N	2.30	0.46
46:BN:9:ARG:HB3	46:BN:13:ARG:NH1	2.30	0.46
33:HA:420:U:C2'	33:HA:421:U:H5''	2.45	0.46
32:E5:73:LYS:CG	32:E5:117:LEU:HD21	2.43	0.46
32:E5:29:ASP:OD1	32:E5:29:ASP:N	2.49	0.46
53:HU:34:ARG:HG3	53:HU:35:ARG:H	1.80	0.46
32:A5:58:THR:HG21	32:A5:82:ILE:N	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2304:G:H4'	6:AF:129:MET:HA	1.97	0.46
1:AA:2312:U:H5'	6:AF:84:ILE:HD13	1.96	0.46
1:EA:1786:A:H1'	1:EA:1938:A:N6	2.30	0.46
32:E5:98:GLU:HA	32:E5:101:LYS:HB2	1.96	0.46
1:GA:2352:A:C6	1:GA:2366:A:C4	3.03	0.46
1:CA:2017:U:H5''	1:CA:2018:G:P	2.55	0.46
1:AA:1722:A:N6	1:AA:1723:G:C6	2.83	0.46
1:AA:1725:U:N3	1:AA:1726:C:N4	2.63	0.46
33:FA:1060:U:OP1	46:FN:85:ARG:NH2	2.43	0.46
4:AD:106:LYS:HB3	4:AD:206:ALA:H	1.80	0.46
37:HE:81:LEU:HB3	37:HE:147:MET:HE2	1.97	0.46
38:BF:40:GLU:CD	38:BF:61:LEU:HD23	2.36	0.46
36:FD:3:ARG:NE	36:FD:115:ARG:HD3	2.31	0.46
2:GB:119:A:OP2	2:GB:119:A:H4'	2.15	0.46
35:BC:119:SER:O	35:BC:123:GLN:HG3	2.16	0.46
18:ER:39:LEU:O	18:ER:49:ILE:HG23	2.16	0.46
21:EU:53:GLN:N	21:EU:54:PRO:CD	2.78	0.46
52:BT:85:LYS:O	52:BT:86:LEU:HB2	2.15	0.46
1:EA:1531:C:H2'	1:EA:1532:A:O4'	2.15	0.46
5:GE:45:ALA:C	5:GE:46:GLN:HG2	2.35	0.46
15:AO:111:ARG:NH2	15:AO:117:PHE:O	2.48	0.46
36:BD:26:ARG:NH2	36:BD:31:LYS:HG2	2.31	0.46
1:CA:1614:A:OP1	59:CA:3308:HOH:O	2.21	0.46
3:GC:166:ARG:O	3:GC:166:ARG:HG3	2.16	0.46
48:DP:67:ILE:HG21	48:DP:72:ALA:HA	1.96	0.46
9:CI:98:GLY:CA	9:CI:137:LEU:HD22	2.45	0.46
1:EA:1737:G:H5''	1:EA:1738:G:OP2	2.14	0.46
7:GG:112:VAL:HG23	7:GG:113:ASP:N	2.29	0.46
9:CI:52:LEU:HD11	9:CI:81:LYS:HE2	1.97	0.46
11:AK:61:VAL:HG13	11:AK:87:LEU:HD11	1.97	0.46
41:BI:91:ASP:CG	41:BI:93:SER:HB3	2.36	0.46
9:CI:109:ALA:HB2	9:CI:128:ILE:HG13	1.97	0.46
41:DI:33:ARG:HD2	41:DI:38:TYR:HD1	1.81	0.46
1:GA:1267:U:O3'	59:GA:3375:HOH:O	2.20	0.46
1:EA:752:A:H62	1:EA:2609:U:H3	1.63	0.46
5:EE:160:ALA:O	5:EE:161:ALA:HB3	2.14	0.46
52:FT:55:GLN:N	52:FT:56:PRO:HD2	2.30	0.46
33:HA:260:G:H2'	33:HA:261:U:C6	2.49	0.46
12:GL:18:ARG:O	12:GL:19:LEU:HB3	2.14	0.46
1:CA:1076:C:O2'	9:CI:93:ASN:HB3	2.15	0.46
33:BA:448:A:C4	33:BA:487:A:C2	3.03	0.46
33:FA:598:U:H4'	40:FH:86:TYR:CD2	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:287:G:H2'	1:AA:288:U:C6	2.50	0.46
1:CA:2193:G:H2'	1:CA:2194:U:H6	1.80	0.46
6:GF:146:ASP:OD1	45:HM:71:ARG:NE	2.44	0.46
34:HB:183:PHE:CE2	34:HB:197:PHE:CD2	3.03	0.46
1:EA:1882:U:O2'	1:EA:1883:U:H5'	2.15	0.46
41:DI:28:ILE:HG13	41:DI:63:LEU:HD21	1.97	0.46
1:AA:1936:A:H2	1:AA:1943:U:C5	2.34	0.46
39:BG:139:GLU:O	39:BG:143:ARG:HB2	2.15	0.46
28:G1:7:LYS:HE3	30:G3:33:THR:HG21	1.97	0.46
1:AA:2425:A:C5'	1:AA:2427:C:O4'	2.63	0.46
33:FA:1505:G:H4'	33:FA:1506:U:H5''	1.97	0.46
54:BV:266:CYS:SG	54:BV:267:GLY:N	2.89	0.46
33:DA:454:G:N2	33:DA:479:U:O2	2.44	0.46
33:HA:368:U:C6	54:HV:362:ARG:HD3	2.50	0.46
23:EW:72:GLY:N	23:EW:73:PRO:CD	2.79	0.46
7:EG:8:VAL:CG1	7:EG:49:LEU:HB2	2.44	0.46
41:BI:55:VAL:HG11	41:BI:87:LEU:HD21	1.96	0.46
7:GG:175:LYS:O	7:GG:176:LYS:CB	2.63	0.46
33:BA:958:A:N6	51:BS:77:THR:O	2.48	0.46
4:CD:11:MET:HA	4:CD:24:VAL:O	2.14	0.46
1:GA:1234:U:H2'	1:GA:1235:G:O4'	2.15	0.46
1:CA:388:G:N7	1:CA:390:U:H2'	2.30	0.46
33:BA:598:U:H4'	40:BH:86:TYR:CG	2.50	0.46
33:HA:1044:A:C5	33:HA:1045:C:H1'	2.50	0.46
10:GJ:135:GLN:CD	10:GJ:135:GLN:N	2.68	0.46
33:DA:110:C:N4	33:DA:111:G:C6	2.83	0.46
43:FK:126:LYS:O	43:FK:127:ARG:HB2	2.16	0.46
1:AA:1307:A:C5	1:AA:1308:A:N7	2.84	0.46
1:AA:1605:C:O4'	1:AA:1610:A:C6	2.69	0.46
1:GA:1171:G:C2	1:GA:1172:C:C5	3.03	0.46
1:AA:2884:U:C5	27:A0:39:ARG:CZ	2.98	0.46
33:FA:533:A:O2'	33:FA:535:A:OP2	2.24	0.46
33:DA:1144:G:N2	33:DA:1146:A:H62	2.13	0.46
42:DJ:80:THR:O	42:DJ:83:THR:N	2.49	0.46
33:BA:780:A:C2	33:BA:803:G:C6	3.03	0.46
45:FM:10:PRO:O	45:FM:11:ASP:HB2	2.15	0.46
51:HS:36:ARG:HB3	51:HS:72:GLY:CA	2.45	0.46
33:DA:608:A:O5'	59:DA:1850:HOH:O	2.21	0.46
54:BV:4:THR:HG21	54:BV:378:ARG:CZ	2.45	0.46
33:BA:1493:A:OP1	55:BW:1:KBE:NZ	2.48	0.46
1:CA:26:G:OP1	19:CS:80:PRO:HB3	2.16	0.46
1:AA:2287:A:C4	1:AA:2289:G:N7	2.83	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1568:G:H4'	3:AC:58:LYS:HB3	1.97	0.46
26:GZ:3:THR:H	26:GZ:38:GLU:HA	1.81	0.46
4:CD:117:GLY:C	4:CD:118:PHE:CD2	2.89	0.46
13:AM:1:MET:O	13:AM:2:LEU:HB3	2.15	0.46
6:EF:72:SER:HB2	6:EF:80:GLN:HB3	1.96	0.46
1:EA:526:A:O2'	1:EA:2043:C:O2	2.30	0.46
11:CK:2:ILE:O	11:CK:6:THR:OG1	2.25	0.46
34:HB:67:LEU:HD12	34:HB:157:PRO:HG2	1.97	0.46
14:EN:117:ASP:OD1	14:EN:118:ARG:N	2.48	0.46
20:CT:93:LEU:HD13	20:CT:93:LEU:N	2.30	0.46
1:AA:479:A:H4'	1:AA:480:A:OP1	2.14	0.46
1:GA:640:C:C4	1:GA:641:U:C4	3.03	0.46
3:AC:65:ASP:OD2	3:AC:101:ARG:NH1	2.46	0.46
1:GA:301:G:H4'	1:GA:302:C:OP1	2.15	0.46
37:DE:80:THR:HB	37:DE:122:ASN:OD1	2.15	0.46
33:DA:292:G:C2	33:DA:309:A:C2	3.03	0.46
10:CJ:73:VAL:HG23	10:CJ:74:TYR:N	2.30	0.46
45:FM:43:VAL:CG1	45:FM:47:GLU:HG2	2.45	0.46
9:CI:59:THR:O	9:CI:66:PHE:HB2	2.15	0.46
46:DN:9:ARG:HB3	46:DN:13:ARG:NH1	2.30	0.46
1:GA:2105:U:H3'	1:GA:2106:U:H5''	1.97	0.46
1:GA:2569:G:C2	1:GA:2570:G:C8	3.03	0.46
4:CD:8:LYS:HB2	4:CD:201:LEU:CD2	2.45	0.46
24:CX:39:VAL:HG22	24:CX:44:ARG:O	2.15	0.46
33:HA:1092:A:H5''	39:HG:4:ARG:NH2	2.31	0.46
36:DD:4:TYR:O	36:DD:5:LEU:HB2	2.15	0.46
33:HA:1276:G:N3	33:HA:1282:C:O2'	2.45	0.46
1:GA:379:G:C6	1:GA:380:G:C5	3.03	0.46
1:AA:1651:G:N2	1:AA:2007:U:C2	2.83	0.46
1:EA:1314:C:OP1	59:EA:3758:HOH:O	2.21	0.46
1:AA:321:U:N1	5:AE:159:LEU:HD23	2.30	0.46
1:EA:2349:G:OP2	30:E3:41:ARG:HD3	2.15	0.46
19:GS:69:LEU:HG	19:GS:107:VAL:HG22	1.96	0.46
14:CN:56:LYS:HD2	14:CN:88:ALA:HA	1.97	0.46
19:CS:75:PHE:CE1	19:CS:104:THR:HB	2.51	0.46
33:DA:1078:U:H4'	37:DE:138:ARG:CZ	2.46	0.46
1:EA:1060:U:H4'	1:EA:1061:U:H5''	1.97	0.46
15:EO:2:ASP:HB3	15:EO:5:SER:HB2	1.98	0.46
1:CA:460:A:OP1	29:C2:41:ARG:NH1	2.48	0.46
46:FN:54:ASP:OD1	46:FN:59:ARG:NH1	2.46	0.46
33:HA:328:C:O2	33:HA:328:C:C2'	2.63	0.46
16:AP:30:TRP:CE3	16:AP:39:LEU:HD12	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BG:27:VAL:HG12	39:BG:43:VAL:HG21	1.97	0.46
10:GJ:17:VAL:HG13	10:GJ:57:LEU:CD2	2.46	0.46
5:CE:3:LEU:O	5:CE:11:ALA:HA	2.16	0.46
1:AA:2267:A:H5''	1:AA:2268:A:H5'	1.97	0.46
1:GA:2283:C:H5''	1:GA:2389:G:O2'	2.16	0.46
1:CA:1672:A:N6	1:CA:1673:G:C6	2.83	0.46
20:ET:35:ALA:HB3	20:ET:38:ALA:HB2	1.98	0.46
17:EQ:78:PHE:CE1	17:EQ:82:LEU:HD11	2.49	0.46
17:CQ:91:ARG:NE	17:CQ:93:ILE:CG2	2.75	0.46
1:CA:1353:A:C8	1:CA:1378:A:N6	2.83	0.46
43:HK:126:LYS:HE3	43:HK:127:ARG:HH21	1.81	0.46
1:AA:856:G:H1'	23:AW:23:LYS:HB3	1.97	0.46
17:AQ:63:ARG:HH12	17:AQ:96:ASP:HA	1.81	0.46
17:AQ:91:ARG:HH11	18:AR:11:GLN:N	2.12	0.46
33:HA:1005:A:H2'	33:HA:1006:G:O4'	2.16	0.46
33:DA:1492:A:C2	33:DA:1493:A:C4	3.02	0.46
38:BF:91:ARG:CG	38:BF:92:THR:H	2.25	0.46
33:DA:1004:A:O2'	33:DA:1036:A:N1	2.42	0.46
1:GA:566:U:H2'	1:GA:567:U:O4'	2.15	0.46
46:DN:21:PHE:C	46:DN:23:LYS:H	2.18	0.46
1:CA:559:G:OP1	10:CJ:111:LYS:HD3	2.15	0.46
48:BP:4:ILE:HD12	48:BP:4:ILE:N	2.29	0.46
33:FA:159:G:N2	33:FA:162:A:OP2	2.49	0.46
4:AD:106:LYS:HB3	4:AD:206:ALA:CB	2.45	0.46
44:BL:43:LYS:HG2	44:BL:44:LYS:H	1.80	0.46
4:CD:149:ASN:CG	4:CD:150:GLN:H	2.16	0.46
1:GA:1070:A:N1	9:GI:8:VAL:HA	2.29	0.46
7:AG:27:GLY:N	7:AG:78:VAL:HG13	2.31	0.46
44:HL:87:VAL:C	44:HL:89:ASP:H	2.19	0.46
15:AO:51:ALA:CB	15:AO:78:VAL:HG13	2.45	0.46
49:BQ:12:VAL:HG23	49:BQ:57:ASP:O	2.16	0.46
1:GA:2250:G:OP1	1:GA:2275:C:O2'	2.15	0.46
45:FM:54:ASP:HA	45:FM:57:ARG:CB	2.45	0.46
42:BJ:57:VAL:CG1	42:BJ:58:ASN:N	2.78	0.46
1:AA:237:C:H2'	1:AA:238:C:C6	2.50	0.46
1:AA:2305:U:H1'	6:AF:132:ARG:HA	1.98	0.46
2:AB:12:C:C4	23:AW:72:GLY:HA3	2.50	0.46
48:DP:71:VAL:O	48:DP:75:ILE:HG23	2.15	0.46
43:DK:128:ARG:HG2	43:DK:128:ARG:HH11	1.80	0.46
6:AF:39:VAL:HG13	6:AF:40:GLY:H	1.79	0.46
45:HM:68:ASP:HA	45:HM:71:ARG:HD3	1.97	0.46
33:DA:454:G:H1	33:DA:479:U:H3	1.63	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1060:U:H4'	1:EA:1061:U:C5'	2.44	0.46
41:HI:12:ARG:HH11	41:HI:13:LYS:HB2	1.80	0.46
1:CA:95:A:C2	1:CA:96:C:H1'	2.50	0.46
36:DD:41:HIS:CD2	36:DD:44:ARG:HH21	2.33	0.46
35:BC:140:ASN:HA	35:BC:143:ARG:HB2	1.97	0.46
33:HA:1533:C:H3'	33:HA:1534:A:C5'	2.46	0.46
28:E1:22:THR:OG1	28:E1:23:THR:N	2.46	0.46
1:AA:2860:A:N7	1:AA:2861:U:H1'	2.31	0.46
5:GE:3:LEU:O	5:GE:11:ALA:HA	2.15	0.46
1:AA:1937:A:N7	1:AA:1939:U:H2'	2.31	0.46
33:BA:202:G:O2'	33:BA:468:A:C8	2.68	0.46
49:DQ:30:LYS:HB3	49:DQ:37:PHE:CE2	2.51	0.46
1:EA:2542:A:H4'	1:EA:2543:G:H8	1.80	0.46
33:BA:1013:G:N2	33:BA:1016:A:OP2	2.48	0.46
1:CA:2892:G:H5''	1:CA:2894:G:N2	2.30	0.46
54:FV:119:VAL:O	54:FV:123:SER:OG	2.31	0.46
3:GC:209:ALA:HA	3:GC:212:TRP:NE1	2.30	0.46
42:BJ:40:ILE:HD12	42:BJ:73:LEU:HD23	1.98	0.46
24:GX:34:SER:HA	24:GX:48:LEU:O	2.15	0.46
35:FC:130:PHE:CE2	35:FC:157:LEU:HD23	2.50	0.46
1:GA:1432:G:H2'	1:GA:1433:A:C8	2.50	0.46
32:E5:67:THR:C	32:E5:69:PHE:N	2.69	0.46
8:GH:31:VAL:HB	8:GH:32:PRO:HD3	1.97	0.46
1:AA:792:A:C6	1:AA:2440:C:C6	3.03	0.46
36:DD:168:PRO:CB	36:DD:171:LEU:CD1	2.94	0.46
44:HL:79:VAL:HG12	44:HL:102:LEU:HD23	1.97	0.46
34:DB:206:ILE:H	34:DB:206:ILE:HD12	1.80	0.46
1:EA:795:C:H6	1:EA:795:C:O5'	1.97	0.46
37:DE:134:ILE:HD12	37:DE:134:ILE:H	1.80	0.46
18:ER:48:LYS:HE2	18:ER:48:LYS:O	2.15	0.46
33:BA:236:A:H2'	33:BA:237:G:C8	2.50	0.46
1:GA:2830:C:O3'	4:GD:56:LYS:NZ	2.46	0.46
1:AA:1024:G:C8	1:AA:1025:G:H2'	2.51	0.46
54:FV:19:ILE:CD1	54:FV:92:HIS:H	2.29	0.46
33:BA:1322:C:OP1	51:BS:78:ARG:NH2	2.49	0.46
1:EA:856:G:H1'	23:EW:23:LYS:HB3	1.97	0.46
23:EW:37:VAL:CG1	23:EW:55:ASP:O	2.62	0.46
54:FV:24:THR:OG1	54:FV:88:ASP:OD2	2.34	0.46
33:BA:681:A:N3	33:BA:710:G:C2	2.83	0.46
1:EA:1076:C:H2'	1:EA:1077:A:O4'	2.15	0.46
23:EW:9:THR:HG1	23:EW:10:ARG:H	1.62	0.46
33:BA:1493:A:OP2	55:BW:6:5OH:NQ	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:43:G:H8	1:AA:43:G:H5'	1.81	0.46
24:CX:69:GLU:O	24:CX:70:LEU:HB2	2.15	0.46
1:GA:1857:G:O2'	1:GA:1858:A:P	2.74	0.46
47:FO:35:GLN:HB3	47:FO:59:MET:HE1	1.96	0.46
7:EG:112:VAL:HG23	7:EG:113:ASP:N	2.30	0.46
34:DB:162:VAL:HG22	34:DB:184:ALA:CB	2.46	0.46
37:BE:110:ALA:O	37:BE:111:MET:CB	2.64	0.46
1:CA:1869:G:N2	1:CA:1873:G:C6	2.83	0.46
33:HA:843:U:O4	33:HA:844:G:N2	2.49	0.46
11:GK:18:ARG:HB2	11:GK:45:GLU:CG	2.45	0.46
20:GT:28:ASN:HA	20:GT:91:GLN:HE22	1.80	0.46
1:GA:2556:C:H2'	1:GA:2557:G:O4'	2.15	0.46
21:EU:84:PHE:O	21:EU:85:ARG:HB3	2.15	0.46
34:BB:209:VAL:HG23	34:BB:210:THR:N	2.30	0.46
33:FA:1118:U:C5'	41:FI:106:ARG:HD2	2.46	0.46
20:ET:54:GLU:HG3	20:ET:88:LYS:HB2	1.98	0.46
20:AT:31:VAL:HA	20:AT:83:ALA:HB3	1.98	0.46
33:BA:1527:U:O4	59:BA:1863:HOH:O	2.20	0.46
33:DA:601:G:C2	33:DA:602:A:C4	3.03	0.46
33:HA:22:G:C6	33:HA:23:C:C4	3.04	0.46
46:HN:51:LEU:HB3	46:HN:52:PRO:HD2	1.98	0.46
33:BA:292:G:O2'	33:BA:608:A:N6	2.49	0.46
33:DA:490:C:C2	33:DA:491:G:C8	3.04	0.46
33:HA:1182:G:H4'	33:HA:1183:U:C5'	2.46	0.46
44:DL:3:THR:HG22	44:DL:5:ASN:H	1.79	0.46
1:GA:1378:A:H4'	1:GA:1379:U:OP1	2.16	0.46
1:EA:579:G:H2'	1:EA:580:U:C6	2.50	0.46
33:HA:398:U:H2'	33:HA:399:G:C8	2.50	0.46
35:BC:150:LYS:HG3	35:BC:201:TRP:CE3	2.50	0.46
1:CA:1077:A:H4'	9:CI:93:ASN:HD22	1.80	0.46
33:BA:202:G:O2'	33:BA:468:A:H2'	2.15	0.46
35:FC:130:PHE:CG	35:FC:131:ARG:N	2.84	0.46
1:AA:802:A:C5	1:AA:803:U:C4	3.04	0.46
33:FA:627:G:H2'	33:FA:628:G:O4'	2.16	0.46
1:CA:134:G:O6	1:CA:144:A:N6	2.49	0.46
1:AA:633:A:OP1	12:AL:68:SER:OG	2.29	0.46
1:AA:634:C:H2'	1:AA:635:C:C6	2.50	0.46
10:EJ:49:ASP:HB2	10:EJ:114:LEU:HD21	1.97	0.46
54:HV:298:ILE:HG23	54:HV:304:ASP:HA	1.97	0.46
33:HA:539:A:H2'	33:HA:540:G:C8	2.50	0.46
33:DA:924:C:O2'	33:DA:1502:A:N1	2.37	0.46
1:CA:1709:U:H2'	1:CA:1710:G:H8	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DF:46:GLN:HA	38:DF:56:LYS:HG2	1.97	0.46
18:AR:14:VAL:HG22	18:AR:20:VAL:HG11	1.98	0.46
28:A1:16:THR:HG21	28:A1:42:VAL:HG23	1.97	0.46
14:CN:98:LEU:HB3	27:C0:42:ILE:HD11	1.98	0.46
1:CA:2584:U:O4	59:CA:3697:HOH:O	2.21	0.46
1:EA:1341:G:C6	20:ET:84:TYR:CE1	3.03	0.46
20:CT:69:ARG:CG	20:CT:70:HIS:H	2.29	0.46
33:DA:913:A:H4'	33:DA:914:A:O5'	2.16	0.46
6:EF:110:ILE:O	6:EF:112:ASP:N	2.48	0.46
10:AJ:17:VAL:HG23	10:AJ:139:VAL:HA	1.98	0.46
25:EY:6:LEU:O	25:EY:7:ARG:HB3	2.14	0.46
5:AE:197:GLU:O	5:AE:201:ALA:N	2.48	0.46
1:CA:564:C:O2	1:CA:578:G:N2	2.49	0.46
12:GL:79:LEU:H	12:GL:113:ALA:HB3	1.81	0.46
54:BV:193:TRP:CH2	54:BV:276:GLN:HB2	2.50	0.46
4:GD:77:ARG:NH2	4:GD:200:ASP:OD1	2.43	0.46
4:AD:69:ALA:HA	4:AD:73:VAL:CG1	2.45	0.46
13:CM:33:LEU:CD2	13:CM:128:THR:HB	2.46	0.46
41:FI:57:MET:O	41:FI:60:LYS:HG2	2.16	0.46
17:CQ:91:ARG:NH2	17:CQ:93:ILE:HG21	2.31	0.46
36:BD:95:GLU:O	36:BD:100:ASN:ND2	2.49	0.46
43:HK:80:LYS:O	43:HK:105:PHE:HA	2.15	0.46
1:CA:2886:A:C6	27:C0:39:ARG:CZ	2.98	0.46
1:GA:1395:A:P	59:GA:3406:HOH:O	2.73	0.46
1:EA:2326:C:C6	1:EA:2326:C:H3'	2.51	0.46
1:AA:945:A:C4	1:AA:2448:A:N3	2.84	0.46
1:GA:2013:A:N3	19:GS:88:ARG:NH1	2.64	0.46
51:HS:36:ARG:HE	51:HS:72:GLY:HA2	1.81	0.46
33:HA:7:A:H1'	59:HA:1838:HOH:O	2.15	0.46
4:GD:119:ALA:HB1	4:GD:124:ARG:HB2	1.96	0.46
12:AL:19:LEU:HB2	12:AL:27:LEU:HD13	1.98	0.46
1:EA:2145:C:C3'	1:EA:2146:C:H5''	2.46	0.46
1:AA:1060:U:H4'	1:AA:1061:U:C5'	2.46	0.46
37:HE:114:VAL:HG11	37:HE:137:VAL:HG23	1.97	0.46
36:DD:3:ARG:CZ	36:DD:115:ARG:HD3	2.46	0.46
1:EA:1778:U:H2'	1:EA:1784:A:H62	1.81	0.46
32:E5:129:LEU:C	32:E5:131:THR:H	2.19	0.46
18:GR:39:LEU:HA	18:GR:49:ILE:HG21	1.98	0.46
1:GA:1392:A:C6	1:GA:1393:A:C6	3.04	0.46
1:CA:250:G:C6	1:CA:251:A:C6	3.04	0.46
54:HV:586:VAL:HG13	54:HV:587:ASP:H	1.80	0.46
33:DA:843:U:H2'	33:DA:844:G:H5'	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1615:C:C5	1:CA:1617:C:C4	3.03	0.46
12:AL:2:ARG:C	12:AL:5:THR:HG22	2.36	0.46
21:EU:71:ILE:HD11	21:EU:81:ARG:N	2.31	0.46
1:AA:2747:G:O2'	7:AG:66:THR:HG22	2.15	0.46
36:DD:72:PHE:CZ	36:DD:200:ILE:HD11	2.50	0.46
1:GA:1025:G:H4'	1:GA:1026:G:OP2	2.14	0.46
37:BE:96:MET:CE	37:BE:115:LEU:HD11	2.45	0.46
52:DT:68:HIS:C	52:DT:69:LYS:HG3	2.36	0.46
35:FC:175:LEU:HD11	35:FC:201:TRP:CD1	2.50	0.46
7:CG:59:ASP:HB3	7:CG:63:GLN:CG	2.46	0.46
1:GA:2847:U:C5	1:GA:2848:G:C5	3.03	0.46
1:AA:852:U:H2'	1:AA:853:C:C6	2.50	0.46
32:A5:88:HIS:CB	32:A5:89:PRO:CD	2.94	0.46
10:EJ:2:LYS:H	10:EJ:2:LYS:CD	2.28	0.46
37:HE:46:VAL:HG22	37:HE:118:ALA:HA	1.97	0.46
1:GA:2028:U:C4	1:GA:2029:G:C6	3.03	0.46
33:FA:579:A:O2'	47:FO:54:ARG:NH1	2.49	0.46
17:CQ:35:PHE:CZ	17:CQ:39:ILE:HD11	2.51	0.46
1:AA:2687:U:H2'	1:AA:2688:G:O4'	2.14	0.46
33:FA:1489:G:C2'	33:FA:1490:U:H5'	2.45	0.46
1:AA:1479:G:C2	1:AA:1480:C:C2	3.04	0.46
10:EJ:17:VAL:HG22	10:EJ:137:PRO:HB2	1.96	0.46
5:EE:168:ASP:OD2	5:EE:170:ARG:NE	2.38	0.46
1:CA:287:G:H2'	1:CA:288:U:C6	2.51	0.46
39:FG:104:ILE:HG21	39:FG:124:LEU:CD1	2.45	0.46
33:HA:289:G:OP2	59:HA:1887:HOH:O	2.20	0.46
1:EA:2443:C:H2'	1:EA:2444:G:H8	1.80	0.46
1:GA:577:G:O2'	1:GA:1254:A:OP1	2.33	0.46
1:AA:1666:G:N7	59:AA:3425:HOH:O	2.36	0.46
40:BH:8:ALA:HA	40:BH:77:ARG:HD3	1.98	0.46
33:HA:972:C:P	42:HJ:59:LYS:HD3	2.55	0.46
33:FA:236:A:H2'	33:FA:237:G:C8	2.51	0.46
33:BA:395:C:H2'	33:BA:396:C:C6	2.50	0.46
1:CA:746:U:O4	59:CA:3306:HOH:O	2.17	0.46
33:BA:1022:A:H2'	33:BA:1023:U:O4'	2.15	0.46
34:FB:148:GLY:C	34:FB:150:ILE:H	2.18	0.46
3:EC:156:SER:O	3:EC:194:VAL:HG21	2.16	0.46
39:DG:79:ARG:HD2	39:DG:83:SER:O	2.15	0.46
1:CA:869:G:C5	1:CA:870:U:C5	3.04	0.46
30:C3:23:HIS:ND1	30:C3:24:LYS:O	2.43	0.46
32:E5:125:ARG:HA	32:E5:125:ARG:CZ	2.45	0.46
15:AO:57:ALA:O	15:AO:61:GLN:NE2	2.48	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EC:259:ASN:O	3:EC:260:LYS:HB2	2.15	0.46
1:EA:2776:A:C6	1:EA:2778:A:C6	3.04	0.46
10:EJ:64:VAL:HG12	10:EJ:68:LYS:HB2	1.97	0.46
1:CA:2105:U:H3'	1:CA:2105:U:C6	2.50	0.46
1:EA:137:U:HO2'	1:EA:138:U:P	2.36	0.46
46:HN:41:ARG:NH1	46:HN:45:VAL:HG21	2.31	0.46
20:AT:39:THR:HB	20:AT:42:GLU:HB2	1.97	0.46
1:GA:277:G:C8	1:GA:360:U:O4	2.69	0.46
47:HO:45:GLU:O	47:HO:46:HIS:HB2	2.15	0.46
16:GP:58:PHE:HD1	16:GP:75:THR:HG22	1.80	0.46
51:DS:36:ARG:HE	51:DS:72:GLY:CA	2.29	0.46
46:DN:51:LEU:HB3	46:DN:52:PRO:CD	2.46	0.46
33:FA:983:A:N3	33:FA:983:A:C2'	2.79	0.46
44:FL:99:ARG:HB2	44:FL:117:TYR:HA	1.98	0.46
1:GA:880:G:N2	1:GA:898:C:H1'	2.30	0.46
11:EK:105:ARG:O	11:EK:108:ARG:HB2	2.15	0.46
23:CW:29:SER:OG	23:CW:30:VAL:HG12	2.16	0.46
1:CA:1072:C:H5'	1:CA:1073:A:OP1	2.16	0.46
33:HA:747:A:N6	33:HA:748:G:O6	2.49	0.46
6:GF:110:ILE:HD12	6:GF:113:PHE:CD1	2.51	0.46
40:HH:106:THR:CG2	40:HH:121:LEU:HD13	2.45	0.46
33:BA:621:A:H2'	33:BA:622:A:C8	2.51	0.46
34:HB:117:GLU:HA	34:HB:120:SER:HB2	1.96	0.46
6:GF:78:ILE:HG21	6:GF:84:ILE:HD11	1.97	0.46
33:FA:1297:G:P	33:FA:1302:C:H42	2.38	0.46
9:EI:6:ALA:CB	9:EI:60:VAL:HB	2.46	0.46
49:DQ:12:VAL:HG23	49:DQ:57:ASP:O	2.15	0.46
3:GC:16:VAL:HG23	3:GC:203:VAL:HG11	1.98	0.46
44:HL:59:ASN:HD22	44:HL:59:ASN:H	1.64	0.46
7:CG:85:LYS:HG2	7:CG:131:VAL:HG12	1.97	0.46
34:HB:16:GLY:HA3	34:HB:40:ILE:HG23	1.98	0.46
16:EP:19:PHE:O	16:EP:20:ARG:CB	2.62	0.46
35:HC:7:PRO:CG	35:HC:184:TYR:CG	2.99	0.46
14:EN:12:ARG:HD3	14:EN:16:HIS:CD2	2.51	0.46
37:BE:97:GLN:HB2	37:BE:124:LEU:HB2	1.98	0.46
1:AA:2390:U:OP2	30:A3:34:LYS:NZ	2.48	0.46
36:HD:76:TYR:HE2	36:HD:201:VAL:HG13	1.80	0.46
1:AA:2748:A:H1'	7:AG:66:THR:HG22	1.98	0.46
1:GA:1019:U:C5	1:GA:1020:A:N7	2.84	0.46
33:BA:815:A:C2	33:BA:1529:G:C4	3.04	0.46
48:DP:52:LEU:CD2	48:DP:75:ILE:HG22	2.45	0.46
1:GA:26:G:C5	1:GA:27:G:C6	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:616:A:H4'	5:EE:101:TYR:CE2	2.51	0.46
7:AG:108:PHE:CE1	7:AG:151:ARG:CZ	2.98	0.46
44:FL:87:VAL:HG11	44:FL:90:LEU:HD22	1.96	0.46
19:GS:59:GLU:HA	19:GS:64:ALA:HB2	1.98	0.46
12:GL:2:ARG:HA	12:GL:5:THR:HG21	1.97	0.46
26:AZ:40:THR:HG23	26:AZ:43:ILE:H	1.80	0.46
1:CA:1077:A:H4'	9:CI:93:ASN:ND2	2.30	0.46
1:CA:1874:C:H2'	1:CA:1875:G:O4'	2.16	0.46
33:FA:375:U:H4'	48:FP:17:TYR:CE2	2.51	0.46
33:DA:860:A:H2'	33:DA:861:G:O4'	2.16	0.46
1:CA:1796:U:H2'	1:CA:1797:G:C8	2.51	0.46
33:FA:652:U:O2'	33:FA:653:U:OP2	2.24	0.46
1:AA:1638:C:H4'	1:AA:2710:C:O2	2.15	0.46
33:BA:164:G:C2	33:BA:165:G:C8	3.04	0.46
33:BA:17:U:H2'	33:BA:18:C:C6	2.51	0.46
33:BA:714:G:H21	33:BA:777:A:H1'	1.81	0.46
16:GP:13:LYS:HE3	16:GP:76:HIS:HA	1.97	0.46
12:EL:57:LEU:CD2	30:E3:53:ASP:HB3	2.45	0.46
1:AA:45:G:H5''	1:AA:46:G:H5'	1.97	0.46
1:CA:1439:A:OP2	59:CA:3626:HOH:O	2.21	0.46
12:CL:132:ARG:HG3	12:CL:142:ILE:HD12	1.98	0.46
10:AJ:64:VAL:CG2	10:AJ:89:PHE:CZ	2.99	0.46
34:BB:18:GLN:HG2	34:BB:189:ASN:ND2	2.30	0.46
43:BK:122:ARG:CZ	53:BU:36:GLU:HB2	2.46	0.46
3:AC:51:ARG:HB3	3:AC:52:HIS:CD2	2.50	0.46
1:CA:2305:U:H5''	6:CF:130:GLY:HA3	1.96	0.46
5:GE:109:LEU:O	5:GE:112:LEU:N	2.48	0.46
51:DS:11:ILE:HG22	51:DS:38:SER:HB3	1.97	0.46
20:AT:4:GLU:OE1	20:AT:4:GLU:N	2.48	0.46
54:HV:177:GLU:OE1	54:HV:177:GLU:N	2.45	0.46
1:CA:593:U:H2'	1:CA:594:U:C6	2.51	0.46
54:BV:382:ILE:O	54:BV:382:ILE:HD12	2.15	0.46
1:GA:1171:G:H1'	1:GA:1179:G:H1	1.80	0.46
1:AA:2326:C:H4'	1:AA:2327:A:OP1	2.16	0.46
1:AA:2886:A:C5	27:A0:39:ARG:CZ	2.99	0.46
23:EW:51:GLY:HA3	23:EW:59:PHE:CZ	2.51	0.46
33:BA:681:A:C2	33:BA:710:G:N1	2.84	0.46
1:GA:1059:G:C6	1:GA:1080:A:N1	2.84	0.46
42:DJ:32:THR:CG2	42:DJ:83:THR:HA	2.45	0.46
1:AA:2336:A:H61	23:AW:40:ARG:HB2	1.80	0.46
36:HD:31:LYS:N	36:HD:31:LYS:HD3	2.31	0.46
1:GA:910:A:C4	13:GM:13:HIS:CE1	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:HN:31:ILE:HG23	46:HN:45:VAL:HB	1.96	0.46
33:DA:1007:U:H2'	33:DA:1008:U:C5'	2.42	0.46
33:HA:668:G:O2'	47:HO:46:HIS:ND1	2.46	0.46
45:BM:11:ASP:HB2	45:BM:45:ILE:HG21	1.97	0.46
1:AA:587:C:O2'	12:AL:19:LEU:HD22	2.16	0.46
31:C4:36:ARG:HG2	31:C4:37:GLN:N	2.30	0.46
33:HA:1129:C:H5''	41:HI:18:ARG:NH2	2.31	0.46
53:DU:4:ILE:N	53:DU:19:PHE:HE2	2.14	0.46
18:GR:49:ILE:HG22	18:GR:53:PHE:C	2.36	0.46
30:C3:33:THR:HG23	30:C3:34:LYS:N	2.31	0.46
25:EY:52:ARG:O	25:EY:56:LEU:HD22	2.15	0.46
1:CA:528:A:H2	1:CA:2043:C:C5'	2.29	0.46
2:GB:117:G:P	15:GO:56:LYS:HE2	2.56	0.46
1:EA:2105:U:H3'	1:EA:2106:U:H5''	1.98	0.46
44:DL:44:LYS:CB	44:DL:45:PRO:CD	2.94	0.46
33:FA:16:A:C2'	33:FA:17:U:H5'	2.46	0.46
8:CH:9:VAL:CG1	8:CH:12:LEU:HD12	2.45	0.46
1:AA:533:G:C6	1:AA:534:U:C4	3.04	0.46
15:AO:53:THR:HB	15:AO:65:THR:HG21	1.98	0.46
11:EK:17:ARG:HB2	11:EK:45:GLU:CB	2.46	0.46
54:HV:127:TRP:CH2	54:HV:262:ILE:HD13	2.51	0.46
44:DL:24:LEU:HG	44:DL:25:GLU:H	1.81	0.46
19:GS:2:GLU:HA	19:GS:108:SER:HB2	1.96	0.46
21:AU:39:ASN:HB3	21:AU:62:ALA:O	2.16	0.46
1:EA:2849:U:OP2	16:EP:92:ARG:NH1	2.49	0.46
36:BD:31:LYS:N	36:BD:31:LYS:HD3	2.31	0.46
33:BA:842:U:H3'	33:BA:843:U:C5'	2.46	0.46
35:DC:42:TYR:CZ	35:DC:46:GLU:HG3	2.51	0.46
10:EJ:73:VAL:HG23	10:EJ:74:TYR:N	2.31	0.46
43:BK:98:ARG:O	43:BK:100:LEU:N	2.49	0.46
1:CA:2318:G:C6	1:CA:2319:G:N1	2.84	0.46
1:CA:784:G:O2'	1:CA:785:G:OP2	2.31	0.46
54:FV:85:ASN:HD22	54:FV:382:ILE:HG13	1.81	0.46
41:DI:48:VAL:HG12	41:DI:79:ILE:HG21	1.97	0.46
33:BA:1283:U:H2'	33:BA:1284:C:C6	2.51	0.46
11:CK:10:VAL:HG21	11:CK:16:ALA:HB3	1.97	0.46
41:DI:38:TYR:CD2	41:DI:39:PHE:CD2	3.03	0.46
54:FV:427:ASP:O	54:FV:430:LYS:N	2.49	0.46
1:EA:2783:U:H2'	1:EA:2784:U:C6	2.51	0.46
37:BE:15:LEU:HD22	37:BE:60:ILE:HG21	1.98	0.46
1:CA:1500:G:H2'	1:CA:1501:G:H8	1.81	0.46
6:GF:43:ILE:CD1	6:GF:77:LYS:HD2	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:FE:156:LYS:HA	40:FH:66:PHE:CD2	2.51	0.46
33:HA:625:U:H4'	48:HP:16:PHE:CE2	2.51	0.46
1:CA:1517:G:C2	1:CA:1518:C:C2	3.04	0.46
1:CA:370:G:O2'	1:CA:424:G:OP1	2.26	0.46
1:AA:1772:A:N1	1:AA:1980:G:C6	2.84	0.46
36:HD:98:LEU:O	36:HD:101:VAL:HG12	2.15	0.46
1:CA:2605:U:H2'	1:CA:2606:C:C6	2.51	0.46
22:GV:14:LYS:HG3	22:GV:15:GLY:N	2.31	0.46
40:BH:102:ALA:O	40:BH:104:VAL:HG12	2.16	0.46
33:DA:435:A:C5	33:DA:436:C:C5	3.03	0.46
9:CI:48:ILE:HG13	9:CI:49:GLU:H	1.81	0.46
1:AA:1021:A:C5	1:AA:1023:U:C5	3.03	0.46
1:AA:1494:A:C2	1:AA:1495:A:C4	3.04	0.46
22:EV:70:ILE:O	22:EV:71:LYS:HB2	2.15	0.46
11:GK:66:LYS:HA	11:GK:79:PHE:O	2.15	0.46
5:EE:111:GLU:OE1	5:EE:115:GLN:NE2	2.49	0.46
37:HE:83:HIS:CG	40:HH:96:MET:HE2	2.51	0.46
51:HS:63:THR:HG22	51:HS:64:ASP:N	2.30	0.46
11:CK:34:GLY:O	11:CK:36:GLY:N	2.47	0.46
33:HA:141:G:C4	33:HA:142:G:C8	3.04	0.46
21:GU:60:LYS:HG3	21:GU:61:GLU:H	1.80	0.46
14:EN:79:LEU:O	14:EN:80:PHE:HB2	2.15	0.46
24:EX:63:ILE:HG22	24:EX:67:LEU:CD2	2.46	0.46
47:HO:14:GLU:O	47:HO:84:ARG:NH2	2.49	0.46
1:CA:53:A:C8	1:CA:54:G:C8	3.04	0.46
40:BH:94:LYS:HG2	40:BH:98:GLY:N	2.31	0.46
3:CC:33:LEU:CD2	3:CC:62:ARG:HD3	2.46	0.46
1:CA:1107:G:C5	1:CA:1108:U:C5	3.04	0.46
33:DA:1289:A:N1	33:DA:1371:G:O2'	2.41	0.46
1:CA:1853:A:N1	1:CA:2087:G:H1'	2.30	0.46
1:AA:2100:G:N7	1:AA:2190:G:N1	2.63	0.46
1:EA:657:U:H2'	1:EA:658:U:C6	2.50	0.46
10:GJ:43:GLU:O	10:GJ:44:TYR:C	2.54	0.46
1:GA:996:A:H4'	17:GQ:91:ARG:HG2	1.97	0.46
1:EA:945:A:OP2	59:EA:3346:HOH:O	2.21	0.46
1:EA:2061:G:H5''	1:EA:2503:A:C2	2.50	0.46
10:EJ:65:THR:HG23	10:EJ:66:GLY:N	2.31	0.46
33:BA:926:G:C6	33:BA:1505:G:C6	3.03	0.46
1:AA:923:G:C1'	23:AW:23:LYS:HD3	2.39	0.46
32:A5:108:VAL:HG12	32:A5:109:LYS:N	2.31	0.46
43:HK:16:VAL:HG13	43:HK:17:SER:N	2.31	0.46
43:HK:70:CYS:O	43:HK:74:VAL:HG22	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:923:G:C1'	23:EW:23:LYS:HD3	2.40	0.46
33:DA:950:U:H2'	33:DA:951:G:C8	2.51	0.46
1:AA:1107:G:H5''	32:A5:58:THR:CG2	2.46	0.46
1:AA:761:A:OP1	59:AA:3295:HOH:O	2.20	0.46
23:GW:41:GLY:C	23:GW:43:LYS:N	2.69	0.46
1:CA:163:C:HO2'	1:CA:164:C:C5'	2.27	0.46
1:EA:1654:A:O2'	4:ED:118:PHE:CB	2.64	0.46
4:ED:119:ALA:CB	4:ED:124:ARG:HB2	2.46	0.46
33:HA:409:U:H5''	36:HD:25:VAL:HG22	1.97	0.46
45:DM:114:LYS:HB2	45:DM:115:PRO:CD	2.44	0.46
1:AA:1161:C:H1'	18:AR:8:GLY:O	2.16	0.46
1:EA:636:G:C6	12:EL:111:ILE:HD11	2.51	0.46
7:GG:84:LYS:HE2	7:GG:133:LYS:HG2	1.97	0.46
11:EK:103:VAL:O	11:EK:122:VAL:HB	2.16	0.46
1:AA:1734:G:H2'	1:AA:1735:A:H8	1.80	0.46
1:AA:1735:A:C2	1:AA:1736:U:N1	2.84	0.46
1:CA:142:A:C2	20:CT:2:ILE:HG23	2.51	0.46
9:GI:83:ALA:HB2	9:GI:105:LEU:CD2	2.45	0.46
37:HE:104:GLY:HA3	37:HE:122:ASN:HA	1.97	0.46
1:CA:1726:C:N4	1:CA:1735:A:C2	2.84	0.46
6:AF:35:LEU:HD21	6:AF:90:LEU:HG	1.98	0.46
33:FA:131:A:C2	33:FA:132:C:C4	3.04	0.46
44:BL:14:ARG:CZ	44:BL:15:LYS:HG2	2.46	0.46
54:FV:221:ASN:HA	54:FV:224:GLU:CB	2.46	0.46
18:CR:49:ILE:O	18:CR:49:ILE:HG13	2.16	0.46
16:AP:92:ARG:O	16:AP:93:LYS:HB2	2.16	0.46
2:AB:53:A:H2'	2:AB:54:G:O4'	2.16	0.46
20:AT:29:THR:CA	20:AT:86:THR:HA	2.45	0.46
54:HV:507:LYS:NZ	54:HV:591:LEU:HD12	2.31	0.46
54:HV:583:TYR:CE1	54:HV:585:ASP:HA	2.51	0.46
33:FA:843:U:H2'	33:FA:844:G:H5'	1.97	0.46
54:BV:127:TRP:CH2	54:BV:262:ILE:HD13	2.51	0.46
1:EA:2138:G:N3	1:EA:2154:A:N6	2.63	0.46
1:CA:958:U:H5''	1:CA:959:A:O5'	2.16	0.46
35:BC:108:LYS:HD3	35:BC:144:LEU:HD13	1.97	0.46
1:AA:1533:C:O2	1:AA:1534:U:C6	2.69	0.46
6:EF:118:ALA:HB1	6:EF:166:ARG:HD2	1.98	0.46
5:AE:131:THR:HG23	5:AE:164:LEU:HD13	1.98	0.46
49:HQ:76:VAL:HG23	49:HQ:77:ARG:H	1.79	0.46
20:GT:40:LYS:O	20:GT:44:LYS:N	2.46	0.46
41:FI:33:ARG:HD2	41:FI:38:TYR:HD2	1.81	0.46
54:DV:497:LYS:HG2	54:DV:524:PRO:HD2	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:FF:21:MET:HA	38:FF:24:ARG:HH21	1.81	0.46
19:CS:96:ILE:C	19:CS:96:ILE:HD13	2.35	0.46
11:CK:121:GLU:HG2	11:CK:122:VAL:H	1.81	0.46
1:EA:2093:G:N7	1:EA:2225:A:H2'	2.31	0.46
34:HB:123:GLY:O	34:HB:125:PHE:N	2.49	0.46
33:BA:986:U:H2'	33:BA:987:G:O4'	2.16	0.46
33:BA:1074:G:OP1	37:BE:69:ARG:NH2	2.49	0.46
19:GS:33:LEU:HD12	19:GS:51:LEU:HD23	1.97	0.46
13:EM:31:PHE:CZ	13:EM:110:GLU:HA	2.51	0.46
33:FA:390:U:H2'	33:FA:391:G:C8	2.51	0.46
33:BA:629:A:H2'	33:BA:630:A:O4'	2.15	0.46
1:GA:384:A:H2'	1:GA:385:C:H5'	1.98	0.46
2:EB:78:A:H2'	2:EB:79:G:O4'	2.16	0.46
1:EA:2355:G:H4'	23:EW:20:LEU:HD12	1.97	0.46
36:DD:124:MET:HA	36:DD:129:VAL:HA	1.97	0.46
6:AF:153:ILE:HD12	6:AF:154:THR:N	2.30	0.46
7:CG:118:ALA:O	7:CG:120:ILE:N	2.44	0.46
1:AA:483:A:C8	21:AU:44:HIS:HD2	2.34	0.46
1:GA:594:U:H3	1:GA:663:G:H1	1.63	0.46
33:DA:811:C:O2'	33:DA:901:A:N1	2.46	0.46
1:GA:1405:U:H2'	1:GA:1406:U:C6	2.51	0.46
7:AG:163:TYR:O	7:AG:164:ALA:HB3	2.16	0.46
25:AY:17:GLU:HB2	25:AY:53:VAL:HG11	1.98	0.46
25:EY:46:VAL:O	25:EY:50:VAL:HG23	2.15	0.46
1:EA:1535:A:H4'	1:EA:1536:C:OP2	2.16	0.46
1:GA:1149:G:H2'	1:GA:1150:C:C6	2.51	0.46
1:EA:2484:G:C2	1:EA:2485:G:C8	3.04	0.46
5:GE:4:VAL:HG12	5:GE:6:LYS:H	1.81	0.46
1:EA:362:A:C5	1:EA:363:G:C8	3.03	0.46
10:EJ:69:ARG:HH11	10:EJ:69:ARG:HG3	1.81	0.46
13:GM:34:LYS:HD2	13:GM:131:VAL:HG11	1.98	0.46
3:GC:232:GLY:CA	59:GC:402:HOH:O	2.63	0.46
10:EJ:44:TYR:O	10:EJ:45:THR:HG22	2.15	0.46
1:EA:1141:U:C6	10:EJ:65:THR:CG2	2.99	0.46
1:CA:995:C:HO2'	1:CA:996:A:P	2.37	0.46
17:AQ:63:ARG:NH2	17:AQ:92:LYS:O	2.49	0.46
23:CW:18:LYS:CA	23:CW:36:ILE:HB	2.46	0.46
1:GA:83:A:H2'	1:GA:84:A:N7	2.31	0.46
54:HV:62:THR:OG1	58:HV:801:GCP:O1G	2.33	0.46
33:BA:705:G:H2'	33:BA:706:A:H5'	1.98	0.46
1:GA:571:U:H3'	18:GR:80:ARG:NH2	2.30	0.46
33:BA:780:A:C2	33:BA:803:G:N1	2.83	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:278:A:N3	1:GA:278:A:H2'	2.30	0.46
29:E2:12:ARG:NH1	29:E2:44:VAL:HG13	2.31	0.46
34:BB:112:ARG:NE	34:BB:116:LEU:HD21	2.31	0.46
4:GD:116:LYS:O	4:GD:118:PHE:CD2	2.68	0.46
52:BT:29:ARG:O	52:BT:33:LYS:HG2	2.16	0.46
38:BF:77:THR:O	38:BF:81:ASN:HB2	2.16	0.46
34:DB:22:TRP:CH2	34:DB:24:PRO:HA	2.51	0.46
7:CG:23:ILE:HG22	7:CG:24:THR:N	2.31	0.46
33:HA:746:A:H2'	33:HA:747:A:C8	2.51	0.46
1:GA:1071:G:C2	1:GA:1072:C:H1'	2.51	0.46
40:BH:29:SER:HB3	40:BH:57:PRO:HB2	1.97	0.46
33:FA:16:A:O2'	33:FA:17:U:H5'	2.16	0.46
54:DV:337:ARG:HA	54:DV:382:ILE:HG22	1.97	0.46
5:AE:108:ILE:HD12	12:AL:2:ARG:HH22	1.81	0.46
1:CA:2038:G:H2'	1:CA:2039:U:O4'	2.16	0.46
1:EA:574:A:OP2	59:EA:3266:HOH:O	2.20	0.46
34:HB:72:LYS:HZ2	34:HB:204:ASP:HB3	1.81	0.46
42:DJ:10:LEU:HB2	42:DJ:72:ARG:HB2	1.98	0.46
13:GM:64:TRP:CZ3	13:GM:106:ASP:HB2	2.51	0.46
34:BB:79:VAL:O	34:BB:83:ALA:HB3	2.16	0.46
34:BB:70:GLY:HA2	34:BB:163:ILE:HG22	1.98	0.46
40:FH:78:VAL:HG21	40:FH:125:ILE:HD11	1.98	0.46
21:GU:85:ARG:HD2	21:GU:87:GLU:HA	1.98	0.46
7:EG:162:ARG:NH1	7:EG:168:VAL:HG21	2.31	0.46
33:BA:642:A:N7	40:BH:107:SER:HA	2.31	0.46
1:CA:2803:G:H2'	1:CA:2804:U:C6	2.51	0.46
1:GA:846:U:O2'	1:GA:847:U:P	2.73	0.46
1:EA:2074:U:H2'	1:EA:2075:U:C6	2.51	0.46
33:HA:428:G:C5	33:HA:430:A:C6	3.04	0.46
33:FA:1346:A:N1	33:FA:1374:A:H5''	2.31	0.46
1:GA:2291:U:H2'	1:GA:2292:U:C6	2.51	0.46
4:GD:186:LEU:HD21	16:GP:7:LEU:HD21	1.98	0.46
11:GK:16:ALA:O	11:GK:17:ARG:HB2	2.15	0.46
11:GK:19:VAL:HG13	11:GK:41:ILE:HB	1.98	0.46
1:AA:725:G:C6	1:AA:726:G:N1	2.84	0.46
28:E1:47:ILE:N	28:E1:47:ILE:HD12	2.31	0.46
6:CF:43:ILE:HG22	6:CF:78:ILE:HG22	1.97	0.46
13:EM:35:ALA:HB2	13:EM:102:LEU:HD21	1.98	0.46
39:HG:54:SER:O	39:HG:56:LYS:N	2.48	0.46
1:CA:580:U:H2'	1:CA:581:C:C6	2.51	0.46
35:FC:7:PRO:HG2	35:FC:184:TYR:CG	2.51	0.46
6:GF:61:GLY:CA	6:GF:94:ARG:HD2	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CU:73:ASN:HA	21:CU:95:PHE:CE2	2.51	0.46
33:BA:181:A:H1'	33:BA:194:C:N4	2.31	0.46
1:EA:1319:C:O2	1:EA:1334:G:C2	2.69	0.46
1:EA:1056:G:H5''	1:EA:1057:A:O4'	2.16	0.46
1:EA:626:A:C2	12:EL:78:ARG:HD3	2.51	0.46
33:DA:255:G:H2'	33:DA:256:U:C6	2.51	0.46
1:EA:517:C:OP2	27:E0:9:ARG:NH2	2.48	0.46
1:CA:39:G:H2'	1:CA:40:U:C6	2.51	0.46
1:EA:609:A:H2'	1:EA:610:C:O4'	2.16	0.46
15:GO:58:ILE:O	15:GO:61:GLN:NE2	2.49	0.46
33:HA:942:G:O2'	33:HA:943:U:H5'	2.16	0.46
1:GA:793:A:OP2	1:GA:2071:A:O2'	2.34	0.46
1:CA:657:U:H2'	1:CA:658:U:C6	2.52	0.46
1:CA:1294:U:O2	14:CN:23:ASN:ND2	2.49	0.46
18:CR:21:ARG:NH2	18:CR:93:PHE:CE2	2.85	0.46
6:EF:113:PHE:CZ	6:EF:115:GLY:HA2	2.51	0.46
10:EJ:20:ALA:O	10:EJ:23:LYS:N	2.46	0.46
1:GA:1970:A:OP2	59:GA:3467:HOH:O	2.21	0.46
38:BF:18:VAL:O	38:BF:22:ILE:HG13	2.16	0.46
44:DL:83:ARG:HG2	44:DL:83:ARG:HH11	1.81	0.46
1:AA:2133:G:N3	1:AA:2133:G:H5'	2.31	0.46
54:FV:104:ARG:HD2	54:FV:104:ARG:C	2.37	0.46
22:GV:80:HIS:CD2	22:GV:82:TYR:H	2.34	0.46
1:EA:566:U:H2'	1:EA:567:U:O4'	2.16	0.46
33:DA:1116:U:O3'	41:DI:110:GLN:NE2	2.48	0.46
38:BF:11:HIS:ND1	38:BF:12:PRO:HD2	2.31	0.46
10:EJ:4:PHE:O	10:EJ:44:TYR:OH	2.28	0.45
17:EQ:91:ARG:HE	17:EQ:93:ILE:HG21	1.80	0.45
1:GA:1173:U:C2'	1:GA:1174:U:O5'	2.65	0.45
23:CW:37:VAL:HG13	23:CW:55:ASP:C	2.36	0.45
23:EW:24:ARG:CG	23:EW:65:LYS:HD3	2.46	0.45
34:FB:20:ARG:HH22	34:FB:38:HIS:CD2	2.34	0.45
33:BA:484:G:H4'	33:BA:485:U:O5'	2.15	0.45
1:GA:1394:U:H4'	1:GA:1603:A:H4'	1.97	0.45
1:AA:2269:G:H4'	23:AW:18:LYS:HE2	1.98	0.45
1:GA:277:G:C2'	1:GA:278:A:OP2	2.64	0.45
41:HI:55:VAL:CA	41:HI:94:LEU:HD23	2.46	0.45
42:FJ:35:GLN:CG	42:FJ:77:VAL:H	2.27	0.45
6:CF:39:VAL:C	6:CF:41:GLU:H	2.20	0.45
7:GG:84:LYS:HG3	7:GG:132:LEU:N	2.31	0.45
16:EP:49:ILE:HG22	16:EP:50:ARG:N	2.31	0.45
1:AA:1722:A:N6	1:AA:1739:A:C8	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1723:G:H3'	1:AA:1724:G:C8	2.51	0.45
20:ET:50:LEU:O	20:ET:51:PHE:HB2	2.16	0.45
34:DB:70:GLY:HA2	34:DB:163:ILE:HG22	1.98	0.45
1:CA:1790:C:H2'	1:CA:1791:A:C5	2.51	0.45
1:AA:2478:A:OP2	31:A4:2:LYS:NZ	2.48	0.45
1:EA:1079:C:C2	1:EA:1088:A:N6	2.84	0.45
33:DA:260:G:H2'	33:DA:261:U:C6	2.51	0.45
49:DQ:12:VAL:HG12	49:DQ:13:VAL:H	1.80	0.45
11:EK:10:VAL:HG11	11:EK:16:ALA:HB3	1.98	0.45
46:FN:46:LEU:HG	46:FN:46:LEU:O	2.16	0.45
1:EA:475:C:C4	1:EA:481:G:O6	2.69	0.45
43:DK:31:ILE:HA	43:DK:46:THR:HA	1.98	0.45
1:CA:974:G:C4	1:CA:1186:G:C2	3.03	0.45
1:GA:1507:C:C4	1:GA:1508:A:H2	2.34	0.45
1:GA:1073:A:OP1	1:GA:1074:G:N2	2.49	0.45
1:AA:582:A:C2	1:AA:1259:G:C2	3.05	0.45
33:HA:481:G:H4'	33:HA:481:G:OP1	2.14	0.45
33:BA:76:G:N2	33:BA:77:A:HO2'	2.14	0.45
54:FV:227:ALA:HB1	54:FV:234:MET:HB2	1.98	0.45
1:CA:669:G:N2	1:CA:670:A:C2	2.84	0.45
52:DT:67:ILE:HD11	52:DT:71:LYS:HE2	1.98	0.45
33:HA:502:A:H2'	33:HA:503:C:C6	2.51	0.45
33:HA:986:U:H2'	33:HA:987:G:O4'	2.16	0.45
54:HV:553:VAL:HG23	54:HV:597:ALA:HB2	1.97	0.45
6:AF:109:ARG:HE	6:AF:136:ILE:HA	1.80	0.45
33:BA:234:C:H2'	33:BA:235:C:C6	2.51	0.45
33:HA:368:U:C5	54:HV:362:ARG:HD3	2.51	0.45
11:GK:10:VAL:HG11	11:GK:16:ALA:CB	2.47	0.45
12:EL:78:ARG:CZ	12:EL:113:ALA:HB1	2.46	0.45
35:HC:83:ASP:O	35:HC:87:LEU:HG	2.16	0.45
1:GA:2345:G:N3	1:GA:2381:A:H2'	2.31	0.45
5:GE:48:THR:HG22	5:GE:86:ALA:HB3	1.99	0.45
47:BO:6:GLU:HG3	47:BO:7:ALA:N	2.31	0.45
40:HH:38:ASN:HA	40:HH:49:PHE:HE1	1.81	0.45
9:AI:48:ILE:HG13	9:AI:49:GLU:H	1.81	0.45
1:AA:659:G:H4'	5:AE:95:LYS:HD3	1.98	0.45
45:DM:5:ALA:HB2	45:DM:60:VAL:HG13	1.98	0.45
1:EA:2602:A:H4'	1:EA:2603:G:OP2	2.16	0.45
8:CH:31:VAL:HB	8:CH:32:PRO:CD	2.46	0.45
1:CA:1161:C:H1'	18:CR:8:GLY:O	2.16	0.45
12:EL:62:PRO:HG2	30:E3:24:LYS:HD3	1.98	0.45
1:CA:1441:G:H2'	1:CA:1442:U:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:44:LYS:HG3	20:AT:55:VAL:HG11	1.98	0.45
10:CJ:25:LEU:HB2	10:CJ:62:VAL:HG21	1.98	0.45
1:CA:523:C:H4'	1:CA:540:C:O2	2.16	0.45
34:DB:150:ILE:O	34:DB:152:ASP:N	2.50	0.45
1:EA:2636:C:H2'	1:EA:2637:U:C6	2.51	0.45
28:E1:16:THR:HG21	28:E1:41:VAL:CG2	2.45	0.45
13:EM:73:ILE:HG21	13:EM:91:TYR:CZ	2.51	0.45
1:AA:2241:A:H2'	1:AA:2242:G:C8	2.51	0.45
37:BE:13:GLU:CB	37:BE:39:VAL:HG12	2.46	0.45
33:BA:399:G:H2'	33:BA:400:C:C6	2.50	0.45
3:CC:20:ASN:OD1	3:CC:22:GLU:HG2	2.15	0.45
54:HV:515:TYR:O	54:HV:593:PHE:CZ	2.69	0.45
48:BP:22:ALA:HA	48:BP:33:ILE:HG13	1.98	0.45
1:EA:356:G:H2'	1:EA:357:C:C6	2.51	0.45
21:GU:78:LYS:HG2	21:GU:79:ALA:N	2.31	0.45
1:EA:2682:A:H8	4:ED:11:MET:HG2	1.81	0.45
1:GA:1266:G:N7	19:GS:16:LYS:HE3	2.31	0.45
1:EA:384:A:H2'	1:EA:385:C:H5'	1.97	0.45
1:CA:2107:G:H2'	1:CA:2108:A:O5'	2.16	0.45
23:EW:49:ASN:HA	23:EW:61:LYS:HB2	1.98	0.45
33:BA:705:G:C2'	33:BA:706:A:H5'	2.46	0.45
1:AA:250:G:P	30:A3:12:ARG:HH12	2.39	0.45
46:HN:27:LEU:HB3	46:HN:31:ILE:HD12	1.97	0.45
6:AF:10:GLU:HG2	6:AF:13:LYS:HD3	1.98	0.45
41:FI:45:ARG:HG3	41:FI:46:MET:N	2.31	0.45
1:CA:634:C:H2'	1:CA:635:C:C6	2.51	0.45
23:GW:16:GLU:HA	23:GW:16:GLU:OE1	2.16	0.45
44:FL:25:GLU:O	44:FL:26:ALA:C	2.54	0.45
33:DA:109:A:H2'	33:DA:326:G:N2	2.31	0.45
24:AX:69:GLU:O	24:AX:70:LEU:HB2	2.16	0.45
1:AA:42:A:C2'	1:AA:43:G:C5'	2.94	0.45
33:FA:89:U:O2'	33:FA:90:C:OP2	2.33	0.45
59:EA:3653:HOH:O	3:EC:52:HIS:ND1	2.27	0.45
33:BA:1028:C:N4	33:BA:1034:G:C2	2.85	0.45
33:FA:1159:U:C4	33:FA:1182:G:C5	3.04	0.45
33:FA:61:G:H2'	33:FA:62:U:O4'	2.16	0.45
13:AM:33:LEU:CD2	13:AM:128:THR:HB	2.46	0.45
1:CA:1736:U:N3	1:CA:1737:G:H1'	2.31	0.45
34:FB:45:THR:HG22	34:FB:49:PHE:HD2	1.80	0.45
45:DM:54:ASP:HA	45:DM:57:ARG:HB3	1.98	0.45
33:HA:1123:U:O2'	42:HJ:39:PRO:O	2.32	0.45
1:CA:1341:G:H1	20:CT:24:MET:HE2	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:593:U:H2'	1:AA:594:U:C6	2.52	0.45
33:BA:1331:G:HO2'	33:BA:1332:A:P	2.38	0.45
1:AA:2376:A:C2	15:AO:92:PHE:HB3	2.51	0.45
3:GC:104:LEU:O	3:GC:105:ALA:CB	2.64	0.45
1:CA:1327:A:N6	1:CA:1328:A:C2	2.84	0.45
33:DA:374:A:C6	33:DA:375:U:C4	3.04	0.45
33:FA:71:A:C6	33:FA:100:G:C8	3.04	0.45
7:CG:174:LYS:NZ	7:CG:176:LYS:OXT	2.33	0.45
1:AA:1464:G:O2'	1:AA:1528:A:O2'	2.22	0.45
18:ER:98:ILE:O	18:ER:98:ILE:CG2	2.63	0.45
38:DF:91:ARG:HG2	38:DF:92:THR:H	1.82	0.45
1:GA:26:G:C6	1:GA:27:G:C6	3.04	0.45
1:CA:878:A:C2	1:CA:900:A:C4	3.04	0.45
1:EA:613:A:O2'	1:EA:614:A:OP1	2.33	0.45
8:EH:21:VAL:HG21	8:EH:25:TYR:HD2	1.80	0.45
33:FA:97:G:C5	33:FA:98:A:H1'	2.51	0.45
44:HL:3:THR:HG22	44:HL:5:ASN:H	1.80	0.45
1:AA:2267:A:H5''	1:AA:2268:A:C5'	2.47	0.45
33:FA:653:U:H5'	40:FH:56:LYS:CE	2.47	0.45
37:BE:56:VAL:N	37:BE:57:PRO:HD2	2.31	0.45
1:AA:709:U:H2'	1:AA:710:U:O4'	2.16	0.45
1:AA:1719:G:N2	1:AA:1742:U:H1'	2.31	0.45
7:GG:59:ASP:HB3	7:GG:63:GLN:HG2	1.99	0.45
48:BP:40:ASN:O	48:BP:42:ILE:N	2.49	0.45
1:GA:1548:A:H2'	1:GA:1549:A:C8	2.51	0.45
38:FF:98:GLU:HG3	38:FF:99:ALA:N	2.31	0.45
42:DJ:81:GLU:HA	42:DJ:84:VAL:HG12	1.97	0.45
1:GA:36:G:C6	1:GA:37:C:C5	3.05	0.45
33:FA:295:C:H2'	33:FA:296:U:C6	2.51	0.45
1:CA:2273:A:H2'	1:CA:2274:A:C8	2.52	0.45
51:FS:34:TRP:HD1	51:FS:52:HIS:CD2	2.34	0.45
4:ED:39:ASP:OD1	4:ED:40:LEU:N	2.48	0.45
29:G2:12:ARG:HH11	29:G2:44:VAL:HG11	1.82	0.45
51:FS:49:ILE:HD11	51:FS:62:VAL:CG2	2.47	0.45
1:CA:929:U:H4'	26:CZ:37:ARG:NH2	2.31	0.45
33:HA:730:G:O6	47:HO:51:HIS:NE2	2.47	0.45
54:DV:188:MET:HE1	54:DV:218:TRP:CD1	2.52	0.45
1:CA:1098:A:C5	1:CA:1099:G:C8	3.04	0.45
5:EE:146:VAL:HG12	5:EE:185:LYS:HB2	1.97	0.45
41:BI:15:SER:HB2	41:BI:78:ALA:HB2	1.98	0.45
33:BA:1113:C:H2'	33:BA:1114:C:H6	1.81	0.45
1:CA:1381:G:H2'	1:CA:1382:G:H5'	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BV:453:SER:O	54:BV:455:GLN:N	2.49	0.45
1:GA:980:A:C4	1:GA:1136:G:O4'	2.70	0.45
1:AA:1500:G:C6	1:AA:1501:G:N7	2.84	0.45
5:CE:16:GLU:O	5:CE:20:GLY:N	2.50	0.45
1:EA:1161:C:H1'	18:ER:8:GLY:O	2.15	0.45
1:CA:2790:U:C5	1:CA:2893:A:C2	3.05	0.45
1:CA:1760:C:H2'	1:CA:1761:C:O4'	2.16	0.45
34:HB:206:ILE:N	34:HB:206:ILE:HD13	2.31	0.45
40:FH:5:ASP:HB2	40:FH:81:PRO:HG3	1.97	0.45
10:EJ:44:TYR:HD2	17:EQ:63:ARG:HG2	1.79	0.45
1:AA:2298:A:C6	1:AA:2321:U:C4	3.05	0.45
1:AA:1801:A:OP2	3:AC:149:LYS:NZ	2.48	0.45
1:GA:783:A:H8	1:GA:784:G:H4'	1.80	0.45
43:DK:35:THR:OG1	43:DK:41:ALA:N	2.50	0.45
23:GW:24:ARG:HD3	23:GW:65:LYS:HG2	1.98	0.45
43:HK:71:ALA:HB1	43:HK:75:LYS:HD2	1.98	0.45
54:BV:224:GLU:HG3	54:BV:237:TYR:CE2	2.51	0.45
33:DA:1144:G:N1	33:DA:1145:A:C2	2.85	0.45
1:AA:760:G:O6	1:AA:761:A:C2	2.69	0.45
43:BK:31:ILE:HG22	43:BK:46:THR:HB	1.98	0.45
33:HA:723:U:O2'	33:HA:724:G:P	2.74	0.45
34:DB:11:ALA:HB1	34:DB:14:HIS:CD2	2.51	0.45
44:DL:29:GLN:HB2	44:DL:82:ILE:O	2.17	0.45
15:GO:3:LYS:HG3	15:GO:4:LYS:H	1.81	0.45
10:AJ:81:ILE:HG13	10:AJ:82:GLY:H	1.79	0.45
3:EC:16:VAL:HB	3:EC:203:VAL:HB	1.98	0.45
48:BP:4:ILE:HD13	48:BP:67:ILE:HD13	1.98	0.45
1:AA:1723:G:H2'	1:AA:1724:G:C8	2.51	0.45
33:FA:1376:U:H2'	33:FA:1377:A:C8	2.52	0.45
9:AI:42:ASN:HA	9:AI:45:THR:HB	1.98	0.45
9:AI:46:ASP:HA	9:AI:50:LYS:HD2	1.98	0.45
4:AD:149:ASN:CG	4:AD:150:GLN:H	2.19	0.45
36:BD:91:LEU:HA	36:BD:94:LEU:HD12	1.99	0.45
22:GV:2:PHE:HB2	22:GV:61:LEU:HG	1.99	0.45
17:AQ:30:VAL:HG23	17:AQ:33:VAL:HB	1.97	0.45
42:BJ:22:THR:OG1	42:BJ:72:ARG:HG3	2.17	0.45
54:BV:218:TRP:CZ3	54:BV:223:ILE:HB	2.51	0.45
33:DA:844:G:C2'	33:DA:845:A:H5"	2.47	0.45
20:AT:32:LEU:N	20:AT:83:ALA:HB3	2.31	0.45
12:AL:87:GLY:C	12:AL:89:VAL:H	2.19	0.45
3:GC:104:LEU:HD23	3:GC:142:ASN:HB2	1.99	0.45
35:HC:22:TRP:NE1	35:HC:36:ASP:OD2	2.47	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:GT:55:VAL:O	20:GT:56:GLU:HB3	2.16	0.45
1:GA:2531:A:OP1	7:GG:174:LYS:CE	2.65	0.45
1:GA:27:G:C2	1:GA:512:G:N3	2.85	0.45
20:GT:29:THR:HA	20:GT:86:THR:HA	1.98	0.45
1:AA:1843:C:H5'	3:AC:250:GLN:OE1	2.16	0.45
33:FA:1021:A:H2'	33:FA:1022:A:H5'	1.98	0.45
1:CA:2193:G:H2'	1:CA:2194:U:C6	2.52	0.45
45:HM:68:ASP:O	45:HM:71:ARG:HB2	2.17	0.45
6:EF:107:VAL:HG12	6:EF:113:PHE:CE2	2.51	0.45
38:BF:18:VAL:HB	38:BF:19:PRO:CD	2.46	0.45
33:FA:918:A:H2'	33:FA:919:A:C8	2.51	0.45
53:DU:47:ARG:HA	53:DU:50:ALA:HB3	1.98	0.45
34:DB:45:THR:HA	34:DB:200:PRO:HG2	1.97	0.45
34:DB:40:ILE:HG21	34:DB:201:GLY:HA2	1.98	0.45
1:AA:428:A:H2'	1:AA:429:A:C8	2.51	0.45
1:EA:2333:A:OP2	23:EW:76:ARG:NH1	2.48	0.45
3:AC:59:GLN:NE2	3:AC:84:PRO:O	2.49	0.45
2:EB:109:A:H2'	2:EB:110:C:C6	2.51	0.45
1:AA:2674:G:H4'	11:AK:30:ARG:HG3	1.97	0.45
54:HV:602:LYS:O	54:HV:603:GLU:HB3	2.17	0.45
1:EA:911:A:C5	13:EM:9:PHE:CD2	3.04	0.45
1:EA:372:G:O4'	24:EX:60:LYS:HE3	2.16	0.45
1:CA:2019:A:H4'	17:CQ:33:VAL:HG21	1.98	0.45
1:AA:849:A:H2'	1:AA:850:U:C6	2.51	0.45
54:DV:318:SER:HB3	54:DV:404:ILE:HD11	1.98	0.45
1:GA:2246:G:H1'	1:GA:2426:A:C2	2.51	0.45
36:HD:20:PHE:HB3	36:HD:23:SER:OG	2.16	0.45
1:GA:326:G:N2	1:GA:336:C:O2	2.47	0.45
1:EA:2824:C:C4	1:EA:2825:G:C5	3.04	0.45
1:EA:1526:C:H2'	1:EA:1527:G:O4'	2.15	0.45
1:CA:649:G:H2'	1:CA:650:C:O4'	2.17	0.45
1:CA:744:U:O4	1:CA:745:G:C6	2.70	0.45
33:DA:1376:U:H2'	33:DA:1377:A:C8	2.51	0.45
24:AX:31:ASN:OD1	24:AX:33:HIS:NE2	2.50	0.45
7:AG:29:ASN:OD1	7:AG:30:GLY:N	2.49	0.45
33:DA:293:G:C6	33:DA:294:U:C4	3.05	0.45
7:CG:10:VAL:O	7:CG:10:VAL:HG23	2.15	0.45
1:AA:2461:A:H2'	1:AA:2462:C:C6	2.51	0.45
7:GG:53:PRO:HD3	7:GG:61:TRP:CE3	2.52	0.45
17:EQ:91:ARG:NH2	17:EQ:93:ILE:HG21	2.29	0.45
1:CA:570:G:H2'	1:CA:2030:A:N7	2.31	0.45
17:AQ:91:ARG:HH21	17:AQ:93:ILE:HD13	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1783:A:H5'	1:CA:2608:G:H4'	1.99	0.45
1:CA:2328:A:H2'	1:CA:2329:U:C6	2.52	0.45
33:DA:1004:A:H2'	33:DA:1005:A:O4'	2.15	0.45
36:HD:107:PHE:CE2	36:HD:145:ILE:HG13	2.51	0.45
36:HD:124:MET:CE	36:HD:146:ARG:HG2	2.46	0.45
30:G3:49:VAL:HG23	30:G3:54:LEU:HD13	1.99	0.45
33:HA:72:A:H2'	33:HA:73:C:C5'	2.46	0.45
53:DU:10:GLU:O	53:DU:12:PHE:N	2.47	0.45
31:C4:2:LYS:HD3	31:C4:4:ARG:NH2	2.31	0.45
1:AA:2287:A:C8	1:AA:2289:G:C8	3.04	0.45
42:BJ:35:GLN:HG2	42:BJ:77:VAL:CB	2.47	0.45
38:BF:40:GLU:HB2	38:BF:42:TRP:HE1	1.81	0.45
38:FF:45:ARG:O	38:FF:56:LYS:HA	2.16	0.45
45:BM:29:ARG:NH2	45:BM:63:PHE:HB3	2.31	0.45
7:AG:27:GLY:HA3	7:AG:78:VAL:HG13	1.99	0.45
33:DA:202:G:O2'	33:DA:468:A:C8	2.70	0.45
33:BA:1239:A:H62	33:BA:1299:A:N6	2.14	0.45
28:G1:8:ILE:HG21	28:G1:51:ALA:HA	1.98	0.45
1:CA:2286:G:P	28:C1:29:LYS:HE2	2.56	0.45
33:FA:643:C:H5'	40:FH:32:LEU:HD13	1.98	0.45
1:GA:646:U:C4	1:GA:2368:C:H1'	2.52	0.45
4:ED:148:GLN:OE1	4:ED:152:PRO:HG2	2.16	0.45
7:GG:162:ARG:NH1	7:GG:168:VAL:HG21	2.31	0.45
1:AA:2023:C:OP1	59:AA:3658:HOH:O	2.21	0.45
3:CC:109:LEU:CG	3:CC:110:LYS:H	2.29	0.45
1:CA:2834:G:O6	1:CA:2879:A:H2'	2.16	0.45
1:CA:2071:A:C2	1:CA:2072:C:C2	3.04	0.45
16:AP:30:TRP:CE2	16:AP:39:LEU:HD11	2.50	0.45
13:EM:31:PHE:CE1	13:EM:110:GLU:HG3	2.50	0.45
3:GC:232:GLY:HA2	59:GC:402:HOH:O	2.16	0.45
33:HA:1014:A:N7	33:HA:1015:G:C6	2.84	0.45
33:FA:736:C:H2'	33:FA:737:C:C6	2.52	0.45
1:GA:24:G:H1'	19:GS:77:ASP:HB3	1.99	0.45
38:HF:64:VAL:HG12	38:HF:65:GLU:N	2.32	0.45
33:DA:979:C:H1'	33:DA:1317:C:N4	2.32	0.45
50:FR:63:ARG:HB3	50:FR:70:TYR:CE1	2.51	0.45
1:CA:2457:U:C4	1:CA:2458:G:C6	3.04	0.45
51:FS:56:GLN:CD	51:FS:57:HIS:H	2.20	0.45
6:CF:107:VAL:HG11	6:CF:116:LEU:HD21	1.99	0.45
1:CA:1165:A:H2'	1:CA:1166:G:H8	1.81	0.45
5:GE:150:THR:HG21	5:GE:153:LEU:HA	1.98	0.45
1:AA:1714:U:H5'	1:AA:1715:G:H5'	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:13:SER:O	19:CS:14:ALA:CB	2.64	0.45
48:DP:36:VAL:HG11	48:DP:57:ILE:HG12	1.98	0.45
54:FV:317:PHE:HA	54:FV:341:GLY:HA3	1.99	0.45
1:CA:2046:G:H1'	27:C0:18:HIS:CE1	2.51	0.45
54:HV:105:VAL:HG23	54:HV:106:LEU:N	2.32	0.45
1:CA:2846:G:H2'	1:CA:2847:U:O4'	2.17	0.45
11:GK:69:VAL:HG21	11:GK:106:GLU:CD	2.36	0.45
18:AR:90:ARG:O	18:AR:91:GLN:HB3	2.16	0.45
54:FV:96:THR:HG22	54:FV:129:GLN:HE22	1.81	0.45
1:GA:1032:A:H1'	31:G4:23:ILE:HD13	1.97	0.45
5:CE:134:LEU:CD2	5:CE:161:ALA:HB2	2.47	0.45
16:CP:96:LEU:HB3	16:CP:99:LEU:CD2	2.46	0.45
1:CA:489:G:C6	1:CA:491:G:C2	3.04	0.45
14:GN:33:ILE:HD11	14:GN:112:TYR:CD1	2.51	0.45
14:GN:8:ARG:HB3	14:GN:10:LEU:HD22	1.98	0.45
1:EA:1279:G:H4'	14:EN:31:HIS:CD2	2.52	0.45
1:EA:181:A:C2	1:EA:182:A:C4	3.04	0.45
38:FF:66:ALA:HB1	38:FF:67:PRO:HD2	1.98	0.45
1:CA:765:C:H2'	1:CA:766:U:C6	2.51	0.45
33:BA:973:G:H2'	33:BA:974:A:OP1	2.17	0.45
1:AA:2297:A:C2	1:AA:2321:U:H5	2.35	0.45
1:GA:855:G:C2	23:GW:23:LYS:HD2	2.51	0.45
43:DK:126:LYS:C	53:DU:34:ARG:HH12	2.19	0.45
1:GA:2017:U:H5''	1:GA:2018:G:P	2.56	0.45
1:EA:1353:A:C8	1:EA:1378:A:N6	2.84	0.45
12:EL:95:LEU:HB2	12:EL:101:ILE:HD12	1.99	0.45
6:AF:49:LEU:HD12	6:AF:52:ALA:HB3	1.97	0.45
45:BM:56:LEU:O	45:BM:60:VAL:HG12	2.17	0.45
32:E5:93:ALA:HA	32:E5:130:PRO:CG	2.45	0.45
1:GA:2661:G:H5'	54:HV:19:ILE:HG13	1.99	0.45
43:BK:34:ILE:HG13	43:BK:70:CYS:SG	2.57	0.45
23:GW:28:GLU:OE2	23:GW:29:SER:OG	2.31	0.45
19:GS:19:LEU:HB3	27:G0:21:LEU:HG	1.99	0.45
34:DB:53:LEU:HD23	34:DB:53:LEU:N	2.31	0.45
33:DA:298:A:H2'	33:DA:299:G:C8	2.51	0.45
1:EA:1083:U:C6	1:EA:1085:A:OP2	2.70	0.45
5:CE:149:ILE:HG23	5:CE:188:MET:HA	1.98	0.45
6:GF:134:GLN:HG3	6:GF:140:ILE:CD1	2.45	0.45
6:GF:147:ARG:HG3	6:GF:148:VAL:N	2.31	0.45
37:BE:38:VAL:HG21	37:BE:114:VAL:HG23	1.98	0.45
37:BE:38:VAL:HG11	37:BE:114:VAL:HA	1.98	0.45
1:EA:1439:A:C2	1:EA:1553:A:C4	3.03	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:EU:53:GLN:HG2	21:EU:54:PRO:HD3	1.98	0.45
41:DI:47:VAL:CG2	41:DI:76:ALA:HB1	2.46	0.45
33:BA:64:G:C8	33:BA:99:C:N4	2.84	0.45
33:BA:722:G:O3'	33:BA:723:U:H2'	2.17	0.45
20:CT:29:THR:CB	20:CT:86:THR:HA	2.47	0.45
37:BE:76:LEU:HD12	37:BE:76:LEU:N	2.31	0.45
2:EB:38:C:O4'	15:EO:100:HIS:NE2	2.50	0.45
9:EI:19:PRO:HD2	9:EI:23:VAL:CG2	2.47	0.45
36:BD:25:VAL:HG23	36:BD:26:ARG:H	1.81	0.45
33:BA:76:G:N3	33:BA:76:G:H2'	2.32	0.45
33:BA:993:G:H2'	33:BA:995:C:H41	1.82	0.45
38:DF:98:GLU:HG3	38:DF:99:ALA:N	2.32	0.45
33:DA:209:U:H5'	33:DA:210:C:O5'	2.15	0.45
54:FV:113:TYR:O	54:FV:141:VAL:HA	2.17	0.45
38:FF:21:MET:HB3	38:FF:25:TYR:CE2	2.51	0.45
36:FD:10:LYS:NZ	36:FD:38:PRO:O	2.47	0.45
1:EA:1770:G:C6	1:EA:1983:G:C6	3.04	0.45
1:GA:273:G:N2	1:GA:365:U:C2	2.84	0.45
1:CA:1176:U:H2'	1:CA:1177:G:C8	2.51	0.45
1:EA:995:C:H42	10:EJ:2:LYS:HB2	1.80	0.45
48:BP:46:LYS:HG3	48:BP:47:GLU:H	1.81	0.45
33:DA:16:A:N1	33:DA:919:A:H2	2.14	0.45
38:BF:12:PRO:HA	38:BF:44:ARG:HD3	1.99	0.45
1:CA:2744:G:C2	1:CA:2761:A:C4	3.05	0.45
33:FA:202:G:HO2'	33:FA:468:A:H8	1.64	0.45
15:AO:115:LEU:HD12	15:AO:116:GLN:H	1.81	0.45
6:EF:151:LEU:HD12	6:EF:152:ASP:N	2.31	0.45
38:BF:4:TYR:HB3	38:BF:89:VAL:HG23	1.99	0.45
33:DA:57:G:C6	33:DA:58:C:N3	2.84	0.45
33:HA:436:C:O2'	36:HD:154:ARG:HG3	2.17	0.45
33:BA:1346:A:N1	33:BA:1374:A:H5''	2.31	0.45
38:DF:23:GLU:O	38:DF:27:ALA:N	2.47	0.45
13:CM:50:ARG:CD	13:CM:65:ILE:HD11	2.47	0.45
4:CD:110:THR:HG23	4:CD:171:THR:HG22	1.98	0.45
33:DA:1311:A:C6	33:DA:1312:G:N7	2.85	0.45
33:HA:532:A:N7	35:HC:192:THR:OG1	2.34	0.45
1:CA:334:C:OP1	1:CA:336:C:N4	2.47	0.45
13:AM:13:HIS:O	13:AM:14:LYS:CB	2.64	0.45
1:GA:374:A:H2'	1:GA:375:G:O4'	2.17	0.45
1:EA:1773:A:N7	1:EA:1829:A:H1'	2.32	0.45
3:CC:145:MET:SD	3:CC:153:LEU:HD11	2.56	0.45
33:HA:575:G:C6	33:HA:821:G:N7	2.85	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:492:GLU:OE1	54:DV:567:ALA:N	2.44	0.45
33:HA:375:U:C4	33:HA:376:G:N7	2.85	0.45
11:CK:15:GLY:O	11:CK:46:ALA:HA	2.16	0.45
33:HA:64:G:OP1	33:HA:382:A:N6	2.50	0.45
14:EN:103:ARG:HB2	14:EN:110:MET:HE2	1.97	0.45
26:EZ:24:LEU:O	26:EZ:27:GLY:N	2.47	0.45
37:DE:81:LEU:HD11	37:DE:144:LEU:HD22	1.97	0.45
33:DA:276:G:C6	33:DA:277:C:C5	3.04	0.45
5:GE:23:PHE:CG	5:GE:111:GLU:HG3	2.52	0.45
32:E5:4:ASN:O	32:E5:5:LEU:C	2.54	0.45
51:DS:49:ILE:CD1	51:DS:71:LEU:HD22	2.46	0.45
20:CT:61:LEU:HD12	20:CT:61:LEU:C	2.36	0.45
52:FT:51:PHE:CD1	52:FT:51:PHE:C	2.90	0.45
1:AA:705:A:C6	1:AA:706:A:C5	3.05	0.45
33:BA:1058:G:H2'	33:BA:1059:C:O4'	2.16	0.45
10:GJ:38:GLY:O	10:GJ:43:GLU:HB2	2.16	0.45
39:HG:111:ARG:HD2	39:HG:119:ARG:HA	1.98	0.45
17:CQ:63:ARG:HH22	17:CQ:95:ALA:C	2.20	0.45
33:DA:83:C:H2'	33:DA:84:U:C6	2.51	0.45
36:DD:24:GLY:O	36:DD:26:ARG:N	2.49	0.45
23:GW:8:SER:O	23:GW:9:THR:HG22	2.17	0.45
1:AA:1005:C:H1'	1:AA:1012:U:C4	2.52	0.45
23:GW:21:GLY:HA2	23:GW:25:PHE:CE2	2.52	0.45
53:DU:37:PHE:HA	53:DU:40:LYS:HE2	1.99	0.45
6:AF:19:PHE:HB2	6:AF:21:TYR:CE1	2.51	0.45
1:AA:141:G:C5	20:AT:2:ILE:HD11	2.51	0.45
41:HI:57:MET:CE	41:HI:58:VAL:H	2.29	0.45
1:GA:833:A:C6	1:GA:834:G:C6	3.05	0.45
1:AA:1060:U:H4'	1:AA:1061:U:H5''	1.97	0.45
6:EF:33:ILE:HG13	6:EF:95:MET:SD	2.57	0.45
1:AA:1724:G:H2'	1:AA:1725:U:C6	2.51	0.45
1:CA:2109:U:H4'	1:CA:2180:U:H1'	1.99	0.45
1:EA:1784:A:H4'	1:EA:1785:A:O5'	2.17	0.45
1:GA:1072:C:N4	1:GA:1094:U:C2	2.85	0.45
6:GF:141:ASP:O	6:GF:145:VAL:HG13	2.16	0.45
1:EA:558:U:O3'	10:EJ:111:LYS:HE3	2.17	0.45
4:GD:33:ARG:NH2	4:GD:51:THR:HG23	2.32	0.45
7:GG:35:THR:HG22	7:GG:36:LEU:N	2.32	0.45
33:DA:1151:A:C2	33:DA:1152:A:C5	3.04	0.45
36:FD:151:LYS:HA	36:FD:155:VAL:CG1	2.46	0.45
33:FA:844:G:H2'	33:FA:845:A:H5''	1.97	0.45
1:CA:137:U:O2'	1:CA:138:U:OP2	2.33	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DB:207:ARG:HG3	34:DB:208:ALA:H	1.80	0.45
37:BE:106:ILE:HD11	37:BE:124:LEU:HD22	1.99	0.45
1:EA:340:A:H2'	1:EA:341:C:H5'	1.98	0.45
46:BN:53:ARG:NH2	51:BS:37:ARG:HH21	2.15	0.45
48:DP:4:ILE:N	48:DP:4:ILE:HD12	2.32	0.45
1:GA:477:A:N6	1:GA:500:G:O2'	2.49	0.45
1:GA:27:G:C4	1:GA:512:G:N2	2.85	0.45
1:CA:1232:G:C6	1:CA:1233:C:C4	3.05	0.45
16:CP:13:LYS:NZ	16:CP:80:VAL:HB	2.32	0.45
39:HG:147:ALA:HB1	43:HK:61:PHE:CE1	2.51	0.45
8:AH:28:ASN:C	8:AH:32:PRO:HG2	2.37	0.45
33:DA:18:C:H1'	33:DA:1079:G:H21	1.81	0.45
38:BF:67:PRO:HB2	38:BF:69:GLU:HG2	1.99	0.45
48:DP:46:LYS:HE2	48:DP:48:GLU:H	1.82	0.45
33:FA:658:C:O4'	47:FO:22:THR:OG1	2.34	0.45
33:DA:513:C:H2'	33:DA:514:C:C6	2.52	0.45
49:DQ:47:HIS:HB2	49:DQ:71:LYS:HE2	1.97	0.45
1:GA:1665:A:OP2	59:GA:3424:HOH:O	2.21	0.45
39:HG:54:SER:C	39:HG:56:LYS:H	2.19	0.45
38:BF:10:VAL:HB	38:BF:58:HIS:HB3	1.97	0.45
38:FF:81:ASN:OD1	38:FF:83:ALA:N	2.43	0.45
54:FV:155:VAL:HG22	54:FV:264:VAL:HG11	1.99	0.45
9:GI:17:ALA:HB3	9:GI:42:ASN:HD21	1.82	0.45
48:BP:48:GLU:HG3	48:BP:49:GLY:H	1.80	0.45
1:EA:1637:A:H5'	1:EA:1760:C:O2'	2.16	0.45
1:GA:38:A:C2	1:GA:39:G:C4	3.05	0.45
33:FA:1356:G:H2'	33:FA:1357:A:C8	2.51	0.45
35:HC:155:GLY:O	35:HC:156:ARG:HB2	2.17	0.45
33:HA:449:G:N1	33:HA:450:G:C6	2.85	0.45
22:CV:80:HIS:HD2	22:CV:83:LYS:N	2.14	0.45
33:FA:1178:G:OP1	41:FI:95:ARG:NH2	2.50	0.45
34:BB:27:LYS:N	34:BB:28:PRO:CD	2.80	0.45
1:CA:2293:G:OP1	15:CO:94:ARG:NH2	2.50	0.45
41:HI:26:GLY:N	41:HI:59:GLU:O	2.50	0.45
48:HP:23:ASP:OD2	48:HP:25:ARG:NE	2.47	0.45
1:GA:65:U:H2'	1:GA:66:C:C6	2.52	0.45
33:HA:560:A:H5'	33:HA:566:G:N2	2.31	0.45
1:AA:2051:A:H2'	1:AA:2578:G:OP1	2.17	0.45
1:AA:1340:U:H4'	1:AA:1341:G:OP2	2.17	0.45
54:FV:53:MET:HB2	54:FV:56:GLU:CG	2.46	0.45
33:HA:105:G:H2'	33:HA:106:C:C6	2.52	0.45
54:BV:532:LYS:HD3	54:BV:534:TYR:H	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1683:U:H2'	1:GA:1684:G:C8	2.51	0.45
54:BV:468:ILE:HA	54:BV:471:ASP:HB3	1.99	0.45
13:AM:8:LYS:HE3	13:AM:9:PHE:CE2	2.52	0.45
1:GA:979:A:H2'	1:GA:982:C:H42	1.82	0.45
20:CT:7:LEU:O	20:CT:10:VAL:HG13	2.16	0.45
4:CD:45:TYR:N	4:CD:45:TYR:CD1	2.84	0.45
2:CB:118:C:H2'	2:CB:119:A:H8	1.82	0.45
1:EA:1712:U:H3	1:EA:1746:A:H61	1.63	0.45
17:GQ:60:TRP:CE2	17:GQ:93:ILE:HB	2.52	0.45
1:EA:1019:U:H3	1:EA:1142:A:H62	1.65	0.45
1:CA:996:A:C6	1:CA:1160:G:C2	3.04	0.45
1:CA:995:C:H42	10:CJ:2:LYS:HB2	1.82	0.45
43:HK:43:GLY:HA3	43:HK:74:VAL:HG11	1.99	0.45
43:HK:75:LYS:HE2	43:HK:79:ILE:O	2.16	0.45
1:EA:855:G:H1'	23:EW:23:LYS:HE3	1.98	0.45
43:BK:31:ILE:HB	43:BK:46:THR:CG2	2.47	0.45
33:DA:323:U:H4'	52:DT:17:ALA:HB3	1.99	0.45
1:CA:1913:A:N7	33:DA:1494:G:C5'	2.79	0.45
14:EN:1:MET:O	14:EN:2:ARG:CB	2.64	0.45
1:CA:2700:A:N6	59:CA:3674:HOH:O	2.50	0.45
1:CA:2707:U:C4	59:CA:3674:HOH:O	2.65	0.45
33:HA:42:G:N2	33:HA:401:C:C2	2.84	0.45
33:BA:740:U:H4'	47:BO:39:LEU:CD1	2.47	0.45
1:GA:832:U:H2'	1:GA:833:A:C8	2.52	0.45
16:EP:49:ILE:CG2	16:EP:50:ARG:N	2.79	0.45
20:GT:4:GLU:O	20:GT:8:LEU:HD23	2.17	0.45
36:DD:65:TYR:O	36:DD:115:ARG:NH2	2.50	0.45
6:AF:55:ASP:O	6:AF:59:ILE:HG12	2.17	0.45
18:CR:53:PHE:CD1	18:CR:53:PHE:N	2.82	0.45
41:FI:6:TYR:CG	41:FI:89:GLU:CB	3.00	0.45
16:CP:17:PRO:HD2	16:CP:83:ILE:HD13	1.99	0.45
53:FU:40:LYS:N	53:FU:41:PRO:HD2	2.32	0.45
28:C1:24:LYS:HZ3	28:C1:51:ALA:HB1	1.82	0.45
33:DA:1084:G:P	33:DA:1086:U:C5	3.10	0.45
33:HA:204:G:H3'	33:HA:205:A:C5'	2.47	0.45
20:ET:32:LEU:N	20:ET:83:ALA:HB3	2.31	0.45
34:HB:72:LYS:NZ	34:HB:204:ASP:HB3	2.32	0.45
34:HB:209:VAL:HG23	34:HB:210:THR:N	2.31	0.45
1:AA:236:C:H2'	1:AA:237:C:C6	2.52	0.45
30:A3:41:ARG:HG3	30:A3:44:ARG:NH2	2.32	0.45
20:GT:55:VAL:O	20:GT:56:GLU:CB	2.64	0.45
33:BA:1085:U:O4'	33:BA:1094:G:C6	2.69	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:FF:86:ARG:HH21	50:FR:64:TYR:HB3	1.82	0.45
40:FH:89:LYS:HG3	40:FH:90:ASP:N	2.31	0.45
33:HA:1237:C:H1'	33:HA:1334:G:O2'	2.16	0.45
1:EA:714:U:H5'	1:EA:715:A:OP2	2.16	0.45
14:AN:98:LEU:HB3	27:A0:42:ILE:CD1	2.47	0.45
15:CO:66:GLY:HA2	15:CO:102:ARG:NH1	2.31	0.45
53:FU:10:GLU:CG	53:FU:11:PRO:HD3	2.47	0.45
14:CN:78:LYS:HG2	14:CN:83:LEU:CD1	2.46	0.45
1:EA:2639:A:C2	1:EA:2778:A:C8	3.04	0.45
54:BV:85:ASN:HD22	54:BV:382:ILE:HG13	1.82	0.45
54:FV:427:ASP:HB3	54:FV:479:VAL:HG13	1.99	0.45
54:FV:430:LYS:HG2	54:FV:479:VAL:CG2	2.47	0.45
1:AA:1021:A:C6	1:AA:1023:U:C5	3.05	0.45
1:EA:2682:A:C8	4:ED:11:MET:HG2	2.51	0.45
1:GA:64:A:H2'	1:GA:65:U:C6	2.50	0.45
34:HB:140:LEU:O	34:HB:143:LEU:N	2.49	0.45
1:EA:102:U:N3	25:EY:2:LYS:HB2	2.32	0.45
9:AI:28:GLY:C	9:AI:32:VAL:HB	2.37	0.45
47:BO:52:SER:O	47:BO:55:GLY:N	2.49	0.45
33:DA:399:G:C2	33:DA:400:C:C2	3.05	0.45
2:EB:106:G:H2'	2:EB:107:G:O4'	2.17	0.45
2:AB:21:G:N7	59:AB:1305:HOH:O	2.36	0.45
1:EA:58:G:N2	1:EA:70:G:C4	2.85	0.45
1:GA:1555:G:C2	1:GA:1556:C:C6	3.05	0.45
49:BQ:27:ARG:HG3	49:BQ:40:ARG:HB2	1.99	0.45
7:EG:163:TYR:O	7:EG:164:ALA:HB3	2.17	0.45
33:HA:913:A:H4'	33:HA:914:A:O5'	2.17	0.45
5:EE:42:GLY:O	5:EE:43:THR:OG1	2.35	0.45
54:HV:104:ARG:NH2	54:HV:408:ARG:H	2.15	0.45
1:GA:1936:A:C2	1:GA:1945:G:C4	3.05	0.45
10:GJ:114:LEU:O	10:GJ:117:ALA:N	2.50	0.45
1:CA:2199:A:C8	1:CA:2200:C:C5	3.05	0.45
50:DR:33:ILE:HA	50:DR:40:VAL:HG23	1.99	0.45
1:AA:729:G:H2'	1:AA:1775:U:H1'	1.99	0.45
42:HJ:48:ARG:NH1	42:HJ:66:GLU:OE1	2.50	0.45
1:GA:2526:G:C5	1:GA:2527:C:C5	3.05	0.45
43:FK:17:SER:O	43:FK:80:LYS:N	2.48	0.45
33:BA:771:G:C6	33:BA:809:G:N1	2.85	0.45
1:AA:1233:C:C4	1:AA:1234:U:C5	3.05	0.45
7:CG:145:ALA:O	7:CG:149:ALA:N	2.45	0.45
54:BV:660:LEU:O	54:BV:662:GLU:N	2.46	0.45
1:GA:1421:G:C2	1:GA:1422:G:C8	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DC:3:GLN:OE1	35:DC:3:GLN:N	2.49	0.45
13:CM:70:ASP:C	13:CM:70:ASP:OD1	2.55	0.45
32:E5:117:LEU:CD2	32:E5:120:ALA:C	2.85	0.45
33:HA:1331:G:O2'	33:HA:1332:A:P	2.74	0.45
1:CA:2105:U:H2'	1:CA:2106:U:H5''	1.99	0.45
1:GA:1252:G:C4	1:GA:1253:A:C2	3.05	0.45
41:BI:63:LEU:HD13	41:BI:63:LEU:N	2.32	0.45
1:CA:2326:C:H4'	1:CA:2327:A:OP1	2.17	0.45
16:AP:33:GLU:OE1	16:AP:38:ARG:NH2	2.46	0.45
33:HA:1002:G:N2	33:HA:1003:G:N3	2.64	0.45
5:AE:170:ARG:NH2	5:AE:179:SER:OG	2.50	0.45
21:EU:98:ASN:ND2	21:EU:100:GLU:OE1	2.50	0.45
37:FE:80:THR:CB	37:FE:122:ASN:OD1	2.64	0.45
53:DU:37:PHE:CD1	53:DU:40:LYS:HE2	2.51	0.45
43:BK:107:ILE:O	43:BK:107:ILE:HG23	2.17	0.45
10:AJ:77:HIS:HD2	10:AJ:78:THR:N	2.15	0.45
3:EC:203:VAL:O	3:EC:205:GLY:N	2.49	0.45
45:HM:29:ARG:NH2	45:HM:33:ILE:HD11	2.31	0.45
21:AU:81:ARG:O	21:AU:96:LYS:HG2	2.16	0.45
10:GJ:64:VAL:CG2	10:GJ:68:LYS:HB2	2.46	0.45
36:BD:64:ILE:HG22	36:BD:65:TYR:HD1	1.82	0.45
45:BM:6:GLY:HA3	45:BM:66:GLU:HG3	1.98	0.45
44:BL:73:ASN:O	44:BL:74:LEU:HB2	2.17	0.45
32:A5:91:ALA:C	32:A5:93:ALA:N	2.70	0.45
34:DB:70:GLY:HA2	34:DB:163:ILE:CG2	2.47	0.45
53:BU:40:LYS:N	53:BU:41:PRO:CD	2.80	0.45
35:HC:20:SER:OG	35:HC:40:ARG:NH2	2.49	0.45
5:GE:176:ASP:OD1	5:GE:178:VAL:N	2.50	0.45
17:CQ:97:ILE:HD12	17:CQ:101:ASP:O	2.17	0.45
1:EA:443:A:C5	5:EE:40:ARG:HD3	2.52	0.45
33:BA:1331:G:O2'	33:BA:1332:A:O5'	2.34	0.45
1:AA:1857:G:O2'	1:AA:1858:A:P	2.74	0.45
48:BP:36:VAL:O	48:BP:36:VAL:HG12	2.16	0.45
21:GU:73:ASN:HA	21:GU:95:PHE:CE2	2.52	0.45
34:DB:49:PHE:CD1	34:DB:49:PHE:C	2.89	0.45
6:GF:58:ALA:HB3	6:GF:139:GLU:CG	2.47	0.45
6:GF:58:ALA:HB3	6:GF:139:GLU:HG2	1.99	0.45
51:BS:49:ILE:HD11	51:BS:71:LEU:HD22	1.99	0.45
28:A1:8:ILE:HD11	28:A1:50:GLU:HG3	1.98	0.45
33:DA:60:A:C3'	52:DT:5:LYS:HD2	2.47	0.45
53:HU:19:PHE:CD1	53:HU:19:PHE:O	2.70	0.45
24:EX:44:ARG:HG2	24:EX:45:PHE:N	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:93:VAL:HG12	3:AC:101:ARG:H	1.81	0.45
14:AN:33:ILE:HD11	27:A0:54:ILE:CD1	2.47	0.45
10:CJ:72:LYS:HD2	10:CJ:74:TYR:CZ	2.52	0.45
13:EM:41:LEU:HD21	13:EM:126:ILE:HD11	1.98	0.45
20:GT:69:ARG:HG3	20:GT:70:HIS:ND1	2.32	0.45
2:CB:104:A:H2'	2:CB:105:G:O4'	2.17	0.45
46:DN:45:VAL:HG23	46:DN:46:LEU:H	1.82	0.45
1:AA:422:A:C6	1:AA:423:A:C5	3.05	0.45
11:GK:108:ARG:HD2	11:GK:116:ILE:CD1	2.47	0.45
1:AA:45:G:H5''	1:AA:46:G:OP1	2.17	0.45
32:E5:4:ASN:O	32:E5:7:ASP:N	2.49	0.45
33:BA:892:A:C6	33:BA:893:C:C4	3.05	0.45
37:HE:39:VAL:HG22	37:HE:67:ALA:HB1	1.99	0.45
33:DA:1306:A:N6	33:DA:1331:G:H1'	2.32	0.45
1:GA:2839:G:C5	1:GA:2840:C:C5	3.04	0.45
14:EN:8:ARG:HB3	14:EN:10:LEU:HD22	1.99	0.45
36:BD:125:VAL:O	36:BD:127:GLY:N	2.44	0.45
6:AF:74:ALA:O	6:AF:77:LYS:N	2.48	0.45
3:CC:116:GLN:NE2	3:CC:120:ASP:OD1	2.48	0.45
1:EA:1206:G:C6	1:EA:1207:C:C4	3.04	0.45
8:AH:2:GLN:C	8:AH:3:VAL:HG13	2.37	0.45
1:EA:2246:G:H2'	1:EA:2247:A:C8	2.52	0.45
6:CF:172:PHE:O	6:CF:174:PHE:N	2.50	0.45
54:FV:638:ARG:NH2	54:FV:669:GLN:OE1	2.50	0.45
51:HS:34:TRP:CE2	51:HS:57:HIS:HE1	2.35	0.45
33:BA:1097:C:H2'	33:BA:1098:C:O4'	2.17	0.45
22:EV:51:GLN:HA	22:EV:56:PHE:CG	2.52	0.45
54:FV:414:PRO:HA	54:FV:461:MET:SD	2.57	0.45
33:FA:1218:C:H2'	33:FA:1219:A:C8	2.51	0.45
33:FA:686:U:O2'	33:FA:687:A:OP2	2.23	0.45
1:EA:1050:A:C4	1:EA:2751:G:C2	3.05	0.45
42:HJ:56:HIS:O	42:HJ:57:VAL:HG12	2.16	0.45
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.51	0.45
5:GE:117:ARG:NH2	5:GE:183:PHE:O	2.47	0.45
14:EN:98:LEU:HD22	27:E0:42:ILE:HD11	1.99	0.45
33:BA:367:U:C6	33:BA:394:G:N2	2.85	0.45
19:CS:33:LEU:HD12	19:CS:48:LYS:HE3	1.99	0.45
14:GN:46:ARG:O	14:GN:50:PRO:HG2	2.17	0.45
1:EA:1174:U:H5'	1:EA:1175:A:OP2	2.16	0.45
37:FE:39:VAL:HG22	37:FE:67:ALA:HB1	1.99	0.45
2:GB:82:U:N3	2:GB:83:G:N7	2.64	0.45
34:BB:41:ASN:ND2	34:BB:44:LYS:HB2	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:10:GLY:HA3	48:BP:15:PRO:HA	1.98	0.45
13:EM:20:LEU:N	13:EM:20:LEU:HD22	2.31	0.45
1:AA:1847:A:N3	1:AA:1847:A:H2'	2.32	0.45
18:AR:74:ILE:N	18:AR:74:ILE:HD12	2.31	0.45
1:AA:2455:G:H2'	1:AA:2456:C:C6	2.52	0.45
34:FB:27:LYS:N	34:FB:28:PRO:CD	2.80	0.45
1:GA:996:A:C5	1:GA:1160:G:C2	3.05	0.45
17:EQ:57:ARG:HA	17:EQ:60:TRP:CE3	2.52	0.45
1:EA:784:G:OP2	59:EA:3314:HOH:O	2.20	0.45
43:HK:101:ASN:HA	43:HK:105:PHE:O	2.16	0.45
43:HK:81:ASN:HB2	43:HK:106:ARG:O	2.17	0.45
43:HK:79:ILE:HG23	43:HK:81:ASN:O	2.17	0.45
1:AA:1817:G:H2'	1:AA:1818:U:H5'	1.98	0.45
16:AP:49:ILE:HG22	16:AP:50:ARG:N	2.31	0.45
1:AA:2296:U:C2	1:AA:2333:A:C2	3.04	0.45
1:GA:277:G:H1'	1:GA:361:G:N1	2.31	0.45
6:AF:12:VAL:HG22	6:AF:16:MET:HG3	1.98	0.45
9:GI:33:ASN:HB2	9:GI:60:VAL:HG11	1.99	0.45
6:AF:49:LEU:HD11	6:AF:86:CYS:CB	2.47	0.45
33:HA:1087:G:O5'	33:HA:1087:G:H8	1.99	0.45
20:AT:50:LEU:CD1	20:AT:50:LEU:H	2.28	0.45
34:BB:116:LEU:HD12	34:BB:140:LEU:HD11	1.99	0.45
34:FB:32:GLY:HA2	34:FB:39:ILE:HB	1.99	0.45
4:GD:124:ARG:CD	4:GD:125:TRP:CE2	3.00	0.45
52:FT:62:ALA:HB1	52:FT:69:LYS:H	1.81	0.45
39:DG:113:ASP:HB2	39:DG:119:ARG:HG3	1.98	0.45
33:HA:1277:C:O2'	33:HA:1279:G:H8	1.99	0.45
1:EA:84:A:P	21:EU:5:ARG:HH21	2.39	0.45
51:FS:3:ARG:HH12	51:FS:68:GLY:HA3	1.81	0.45
33:DA:72:A:H2'	33:DA:73:C:C5'	2.47	0.45
1:CA:1078:U:H5''	1:CA:1079:C:OP1	2.16	0.45
33:FA:1166:G:N2	33:FA:1171:A:N6	2.64	0.45
23:CW:45:HIS:HB2	23:CW:50:VAL:HG13	1.99	0.45
1:EA:1256:G:H2'	5:EE:77:ILE:HD11	1.99	0.45
54:BV:188:MET:HE1	54:BV:218:TRP:CD1	2.52	0.45
28:G1:8:ILE:HG23	28:G1:52:LYS:HB2	1.98	0.45
1:AA:1477:A:C2	1:AA:1515:A:C5	3.05	0.45
1:CA:479:A:H4'	1:CA:480:A:OP1	2.17	0.45
5:AE:147:LEU:HB3	5:AE:186:VAL:HG23	1.99	0.45
1:EA:223:A:C5	1:EA:422:A:C8	3.05	0.45
1:AA:1613:G:C2	1:AA:1619:G:C5	3.04	0.45
1:CA:42:A:C2'	1:CA:43:G:H5''	2.47	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2849:U:N3	1:EA:2867:G:O4'	2.48	0.45
36:BD:26:ARG:C	36:BD:26:ARG:HD3	2.36	0.45
22:GV:75:GLN:HB2	22:GV:92:VAL:HG22	1.99	0.45
33:BA:77:A:H2	33:BA:92:U:N3	2.15	0.45
33:DA:1228:C:P	45:DM:107:ARG:HH22	2.39	0.45
28:G1:39:ASP:OD1	28:G1:41:VAL:HG22	2.17	0.45
3:AC:259:ASN:O	3:AC:260:LYS:HB2	2.17	0.45
49:DQ:77:ARG:NH2	49:DQ:79:VAL:HG22	2.32	0.45
33:HA:1181:G:O2'	33:HA:1182:G:N7	2.50	0.45
32:A5:51:TYR:CD1	32:A5:52:MET:HG2	2.52	0.45
4:AD:70:LYS:NZ	7:EG:31:GLU:OE2	2.50	0.45
6:AF:39:VAL:HG11	6:AF:42:ALA:HB2	1.98	0.45
1:AA:1500:G:C4	1:AA:1501:G:C8	3.05	0.45
33:DA:1305:G:N2	33:DA:1331:G:O2'	2.50	0.45
1:GA:350:G:H2'	1:GA:351:C:O4'	2.16	0.45
42:HJ:19:ASP:HA	42:HJ:22:THR:HG22	1.98	0.45
1:AA:1276:A:N7	1:AA:1645:G:C2	2.85	0.45
10:AJ:36:LEU:CD1	10:AJ:54:ILE:HG22	2.47	0.45
1:AA:2318:G:C5	1:AA:2319:G:C6	3.05	0.45
54:FV:557:ILE:HG21	54:FV:576:ILE:HD12	1.98	0.45
53:FU:51:SER:O	53:FU:53:VAL:N	2.43	0.45
43:HK:35:THR:HG23	43:HK:36:ASP:N	2.31	0.45
39:HG:83:SER:HB2	39:HG:85:TYR:CE2	2.52	0.45
1:AA:2887:A:C5	1:AA:2888:C:C5	3.05	0.45
33:FA:690:G:H2'	33:FA:691:G:O4'	2.17	0.45
1:CA:2591:C:H2'	1:CA:2592:G:C8	2.51	0.45
1:GA:792:A:N3	1:GA:2072:C:O2'	2.45	0.45
17:CQ:84:LYS:O	17:CQ:86:SER:N	2.50	0.45
49:HQ:55:ILE:HD12	49:HQ:55:ILE:C	2.37	0.45
22:EV:55:GLU:OE1	22:EV:55:GLU:N	2.39	0.45
4:AD:121:THR:HB	4:AD:127:PHE:CD2	2.52	0.45
34:FB:125:PHE:O	34:FB:125:PHE:CG	2.70	0.45
6:CF:152:ASP:OD1	6:CF:152:ASP:N	2.50	0.45
19:ES:45:VAL:HG22	19:ES:46:LEU:HD23	1.97	0.45
35:HC:118:ASP:O	35:HC:121:THR:HG22	2.17	0.45
1:CA:2704:C:N4	1:CA:2705:A:C6	2.85	0.45
45:HM:2:ALA:CA	45:HM:53:ILE:HD13	2.47	0.45
10:GJ:44:TYR:HD1	10:GJ:44:TYR:O	2.00	0.45
17:GQ:91:ARG:NE	17:GQ:93:ILE:CG2	2.79	0.45
53:FU:34:ARG:NH2	53:FU:35:ARG:HD2	2.32	0.45
9:AI:98:GLY:HA3	9:AI:137:LEU:CD1	2.46	0.45
34:HB:57:ASN:HB2	34:HB:219:THR:CG2	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:EW:50:VAL:HG12	23:EW:51:GLY:N	2.31	0.45
36:DD:37:ALA:H	36:DD:38:PRO:HD3	1.82	0.45
1:CA:1913:A:C2	54:DV:514:GLN:NE2	2.85	0.45
54:DV:591:LEU:HD13	54:DV:591:LEU:C	2.37	0.45
23:GW:18:LYS:HE3	23:GW:19:ARG:CG	2.47	0.45
23:GW:19:ARG:CZ	23:GW:22:VAL:HB	2.47	0.45
29:E2:31:LEU:HD22	29:E2:42:LEU:CD1	2.47	0.45
32:E5:87:GLU:OE2	32:E5:95:LEU:HD23	2.17	0.45
32:E5:23:LEU:HD11	32:E5:96:PHE:CE2	2.52	0.45
1:AA:1019:U:H3	1:AA:1142:A:H62	1.65	0.45
40:FH:3:MET:CE	40:FH:6:PRO:HA	2.47	0.45
6:EF:33:ILE:HD12	6:EF:95:MET:HG3	1.99	0.45
1:AA:2104:C:H2'	1:AA:2105:U:O4'	2.17	0.45
1:EA:1913:A:H1'	55:FW:4:SER:HA	1.99	0.45
1:CA:141:G:H5''	1:CA:142:A:C5	2.52	0.45
33:FA:374:A:H5''	33:FA:452:A:C2	2.52	0.45
4:AD:107:VAL:HA	4:AD:204:LYS:O	2.16	0.45
4:AD:107:VAL:O	4:AD:174:SER:O	2.35	0.45
33:HA:747:A:N6	33:HA:748:G:C6	2.85	0.45
6:GF:140:ILE:CG2	6:GF:145:VAL:HG12	2.46	0.45
22:GV:2:PHE:H	22:GV:61:LEU:HD12	1.82	0.45
44:BL:25:GLU:CB	44:BL:27:CYS:SG	3.05	0.45
1:CA:1870:C:H3'	1:CA:1871:A:C8	2.51	0.45
5:CE:118:LEU:HD23	5:CE:186:VAL:HG13	1.99	0.45
1:GA:2307:G:N2	1:GA:2311:A:H2'	2.32	0.45
33:DA:1239:A:C2	33:DA:1297:G:C2	3.05	0.45
33:FA:1125:U:C5	33:FA:1127:G:C5	3.05	0.45
12:GL:101:ILE:HG22	12:GL:102:GLY:N	2.31	0.45
11:EK:10:VAL:HG21	11:EK:17:ARG:H	1.82	0.45
34:DB:79:VAL:O	34:DB:83:ALA:HB3	2.17	0.45
41:DI:42:GLU:C	41:DI:44:ALA:H	2.19	0.45
18:GR:41:ILE:O	18:GR:46:GLU:HB2	2.17	0.45
46:FN:41:ARG:HG3	46:FN:42:TRP:CE3	2.52	0.45
46:FN:42:TRP:CD1	46:FN:45:VAL:HG13	2.52	0.45
12:GL:110:VAL:HB	12:GL:127:VAL:HG23	1.99	0.45
1:CA:547:A:H5''	1:CA:548:G:N7	2.31	0.45
11:CK:118:LEU:O	11:CK:119:ALA:HB3	2.17	0.45
1:CA:1271:G:O2'	1:CA:1618:A:OP1	2.31	0.45
7:EG:39:ALA:CB	7:EG:57:TYR:CD2	2.99	0.45
1:EA:1479:G:C2	1:EA:1480:C:C2	3.05	0.45
1:EA:118:A:H3'	1:EA:119:A:H5''	1.99	0.45
33:DA:327:A:O2'	33:DA:328:C:O4'	2.26	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:5:U:O2'	2:AB:27:C:O2	2.32	0.45
1:AA:1807:G:H2'	1:AA:1808:A:H5'	2.00	0.45
1:CA:778:G:C6	1:CA:779:U:C4	3.05	0.45
1:GA:2679:A:O2'	1:GA:2680:U:H5'	2.16	0.45
53:FU:12:PHE:CZ	53:FU:16:LEU:CD1	3.00	0.45
36:DD:98:LEU:N	36:DD:135:TYR:O	2.49	0.45
41:FI:120:LYS:O	41:FI:121:ALA:CB	2.65	0.45
41:BI:51:PRO:HB3	41:BI:84:THR:CG2	2.47	0.45
46:DN:41:ARG:NH1	46:DN:45:VAL:HG21	2.32	0.45
1:EA:1381:G:C2'	1:EA:1382:G:H5'	2.47	0.45
36:DD:124:MET:HB3	36:DD:129:VAL:HA	1.99	0.45
20:AT:43:ILE:CD1	20:AT:58:VAL:HG21	2.47	0.45
1:GA:980:A:O3'	59:GA:3587:HOH:O	2.21	0.45
1:EA:102:U:O4	25:EY:3:ALA:N	2.41	0.45
33:FA:649:A:H2'	33:FA:650:G:O4'	2.17	0.45
35:BC:134:MET:O	35:BC:138:VAL:HG23	2.16	0.45
54:BV:298:ILE:HG23	54:BV:304:ASP:HA	1.99	0.45
33:HA:1070:U:H2'	33:HA:1071:C:C6	2.51	0.45
33:HA:1088:G:H21	33:HA:1167:A:N6	2.15	0.45
1:GA:428:A:H2'	1:GA:429:A:C8	2.52	0.45
54:HV:72:TRP:HB2	54:HV:84:ILE:HD11	2.00	0.45
1:EA:2052:A:OP1	4:ED:145:SER:HA	2.17	0.45
46:HN:73:PHE:CZ	46:HN:78:GLY:HA2	2.52	0.45
1:AA:1183:U:H2'	1:AA:1184:U:C6	2.52	0.45
33:DA:1319:A:OP1	51:DS:70:LYS:NZ	2.43	0.45
11:CK:88:ASN:N	11:CK:95:ILE:CG2	2.80	0.45
33:HA:1171:A:C2	33:HA:1172:C:C2	3.05	0.45
1:CA:1060:U:H4'	1:CA:1061:U:H5''	1.98	0.45
1:GA:828:U:H2'	1:GA:829:A:C8	2.52	0.45
33:HA:173:U:H6	33:HA:198:G:HO2'	1.64	0.45
48:DP:20:VAL:CG2	48:DP:32:PHE:HB2	2.47	0.45
33:HA:929:G:C6	33:HA:930:C:C4	3.05	0.45
33:HA:753:A:H4'	33:HA:754:C:O5'	2.17	0.45
1:CA:2489:U:O2	1:CA:2491:U:C4	2.70	0.45
37:DE:74:VAL:HG12	37:DE:76:LEU:HD12	1.98	0.45
33:BA:473:U:C2	33:BA:474:G:C8	3.05	0.45
1:CA:2020:A:H5'	27:C0:8:THR:CG2	2.47	0.45
33:BA:1010:U:H2'	33:BA:1011:C:C6	2.52	0.45
10:GJ:58:ASN:N	10:GJ:127:GLY:O	2.44	0.45
45:FM:23:TYR:CD2	45:FM:69:LEU:HD23	2.52	0.45
1:CA:1027:A:C6	1:CA:1126:A:N3	2.85	0.45
10:CJ:117:ALA:HA	10:CJ:120:ARG:HH21	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DH:47:GLU:HB3	40:DH:62:THR:OG1	2.17	0.45
4:CD:186:LEU:HD21	16:CP:3:ILE:CG2	2.46	0.45
20:AT:34:VAL:O	20:AT:34:VAL:HG23	2.17	0.45
1:EA:2210:U:H4'	1:EA:2211:A:H5'	1.99	0.45
1:GA:2599:G:N7	3:GC:234:GLY:O	2.50	0.45
13:AM:34:LYS:HE2	22:AV:81:PRO:O	2.17	0.45
41:BI:20:PHE:O	41:BI:63:LEU:HA	2.17	0.44
16:AP:33:GLU:CD	16:AP:38:ARG:HH22	2.21	0.44
1:EA:855:G:H21	23:EW:23:LYS:HG2	1.82	0.44
32:A5:27:VAL:HG23	32:A5:110:ALA:HA	1.99	0.44
33:BA:705:G:C4	33:BA:706:A:C8	3.04	0.44
6:GF:38:GLY:HA2	6:GF:85:GLY:HA3	1.98	0.44
1:AA:276:U:C2	1:AA:277:G:C2	3.05	0.44
23:GW:17:ALA:O	23:GW:18:LYS:CB	2.64	0.44
9:AI:75:ALA:HB2	9:AI:112:LYS:HE2	2.00	0.44
6:AF:12:VAL:HG22	6:AF:16:MET:SD	2.57	0.44
6:AF:64:PRO:HG3	6:AF:88:VAL:HG23	1.98	0.44
16:CP:33:GLU:OE1	33:DA:346:G:O4'	2.35	0.44
1:AA:1247:A:H1'	1:AA:1248:G:OP1	2.17	0.44
1:AA:1060:U:N3	1:AA:1088:A:H2	2.15	0.44
1:CA:1733:G:N7	1:CA:1734:G:C8	2.86	0.44
7:CG:8:VAL:HG11	7:CG:49:LEU:HB2	1.99	0.44
6:AF:90:LEU:HD11	6:AF:98:PHE:HB3	1.99	0.44
44:BL:24:LEU:O	44:BL:26:ALA:N	2.50	0.44
34:BB:98:GLY:HA2	34:BB:101:THR:HG22	1.99	0.44
18:ER:53:PHE:CD1	18:ER:53:PHE:N	2.84	0.44
8:CH:5:LEU:O	8:CH:6:LEU:HD12	2.17	0.44
49:FQ:75:LEU:HD11	49:FQ:77:ARG:O	2.17	0.44
9:EI:66:PHE:CE1	9:EI:68:PHE:HD2	2.36	0.44
21:EU:86:PHE:CE1	21:EU:101:THR:HG21	2.52	0.44
50:BR:21:ILE:HD12	50:BR:22:ASP:N	2.32	0.44
3:CC:143:VAL:O	3:CC:151:GLY:HA2	2.17	0.44
33:FA:502:A:H2'	33:FA:503:C:O4'	2.17	0.44
1:AA:788:A:OP1	1:AA:791:C:N4	2.42	0.44
49:HQ:62:ARG:HG2	49:HQ:76:VAL:HG13	1.98	0.44
33:BA:578:C:O2'	33:BA:728:A:N3	2.42	0.44
9:AI:58:ILE:HG22	9:AI:59:THR:N	2.32	0.44
40:BH:106:THR:HG22	40:BH:107:SER:N	2.32	0.44
33:DA:448:A:N6	33:DA:487:A:H1'	2.32	0.44
9:CI:132:ALA:O	9:CI:137:LEU:HB2	2.17	0.44
25:GY:44:LYS:HE3	25:GY:48:ARG:NH2	2.32	0.44
1:GA:882:G:N2	1:GA:895:U:H1'	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:GL:2:ARG:HA	12:GL:5:THR:CG2	2.47	0.44
1:GA:2286:G:P	28:G1:29:LYS:HE2	2.57	0.44
54:FV:137:ARG:CG	54:FV:262:ILE:HG12	2.47	0.44
14:GN:71:ARG:HG3	14:GN:71:ARG:HH21	1.82	0.44
6:AF:110:ILE:HB	6:AF:113:PHE:HB2	1.99	0.44
40:FH:59:LEU:HD21	40:FH:61:LEU:HD21	1.99	0.44
42:HJ:59:LYS:HG3	42:HJ:60:ASP:N	2.32	0.44
1:GA:1665:A:H5''	11:GK:66:LYS:HG3	2.00	0.44
21:CU:73:ASN:HA	21:CU:95:PHE:HE2	1.82	0.44
6:EF:107:VAL:N	6:EF:108:PRO:CD	2.80	0.44
7:GG:59:ASP:HB3	7:GG:63:GLN:CG	2.47	0.44
1:CA:2199:A:H3'	1:CA:2200:C:H6	1.82	0.44
1:GA:2840:C:C2	1:GA:2841:C:C5	3.05	0.44
33:BA:515:G:N7	59:BA:1848:HOH:O	2.36	0.44
1:AA:1179:G:H2'	1:AA:1180:U:O4'	2.17	0.44
23:AW:60:ALA:CB	23:AW:81:ILE:CD1	2.96	0.44
6:GF:117:SER:O	6:GF:127:TYR:OH	2.35	0.44
15:CO:24:THR:HG22	15:CO:42:PRO:HD3	1.99	0.44
50:HR:33:ILE:HA	50:HR:40:VAL:HG23	1.99	0.44
1:EA:301:G:C6	1:EA:317:G:C6	3.05	0.44
2:EB:16:G:C5	2:EB:69:G:C2	3.05	0.44
54:BV:56:GLU:HB2	54:BV:61:ILE:O	2.17	0.44
5:EE:112:LEU:HD13	5:EE:186:VAL:HG11	1.99	0.44
1:CA:612:G:N2	59:CA:3288:HOH:O	2.50	0.44
1:EA:734:A:C5	1:EA:735:A:C8	3.05	0.44
6:EF:24:VAL:O	6:EF:27:VAL:HG12	2.16	0.44
33:FA:60:A:O3'	52:FT:5:LYS:HE3	2.17	0.44
52:FT:5:LYS:O	52:FT:7:ALA:N	2.50	0.44
1:GA:2407:A:OP1	59:GA:3558:HOH:O	2.21	0.44
1:EA:1067:A:C8	54:FV:642:LEU:HB2	2.52	0.44
1:CA:1105:U:H2'	1:CA:1106:G:C8	2.51	0.44
1:GA:397:U:H2'	1:GA:398:C:C6	2.51	0.44
1:GA:1011:G:C4	1:GA:1151:A:C2	3.05	0.44
40:HH:105:SER:HB2	40:HH:126:ILE:HD11	1.99	0.44
54:FV:5:THR:HG23	54:FV:6:PRO:HD3	1.99	0.44
1:AA:2337:G:N2	1:AA:2338:C:C2	2.85	0.44
33:FA:328:C:O2	33:FA:328:C:C2'	2.65	0.44
1:EA:348:A:H2'	1:EA:349:U:O4'	2.16	0.44
33:BA:66:A:C2	33:BA:67:C:C6	3.04	0.44
20:CT:35:ALA:HB3	20:CT:38:ALA:HB2	1.99	0.44
10:GJ:88:THR:O	10:GJ:91:GLU:N	2.50	0.44
54:HV:197:ASP:O	54:HV:199:GLY:N	2.50	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:HN:20:TYR:O	46:HN:23:LYS:HB3	2.16	0.44
33:HA:441:A:H61	33:HA:494:G:H22	1.64	0.44
32:E5:2:ALA:HB3	32:E5:6:GLN:HB2	1.99	0.44
7:AG:22:VAL:CG1	7:AG:34:ARG:HB3	2.47	0.44
10:CJ:118:MET:HA	10:CJ:121:LYS:HE2	1.99	0.44
2:GB:80:U:H2'	2:GB:81:G:C8	2.51	0.44
54:HV:63:ILE:HG21	54:HV:468:ILE:HD12	1.99	0.44
33:BA:1060:U:C4	35:BC:2:GLY:N	2.85	0.44
39:DG:125:SER:O	39:DG:128:ALA:N	2.48	0.44
1:AA:1411:U:H2'	1:AA:1412:U:O4'	2.17	0.44
1:GA:1796:U:H2'	1:GA:1797:G:C8	2.52	0.44
33:DA:393:A:C2	33:DA:394:G:C8	3.05	0.44
52:DT:30:THR:HA	52:DT:33:LYS:HG3	1.99	0.44
22:AV:38:LEU:HD21	22:AV:65:VAL:HG21	1.98	0.44
53:FU:19:PHE:O	53:FU:19:PHE:HD1	1.99	0.44
16:AP:111:GLU:OE1	16:AP:111:GLU:N	2.50	0.44
22:EV:43:ASP:OD1	22:EV:43:ASP:C	2.55	0.44
49:HQ:6:ARG:HB3	49:HQ:6:ARG:CZ	2.47	0.44
26:EZ:5:LYS:N	26:EZ:5:LYS:HD2	2.32	0.44
36:DD:170:TRP:CD2	36:DD:186:PRO:HB3	2.53	0.44
32:A5:108:VAL:CG1	32:A5:109:LYS:N	2.80	0.44
23:EW:19:ARG:NE	23:EW:22:VAL:HB	2.33	0.44
23:EW:24:ARG:HG3	23:EW:65:LYS:HD3	1.99	0.44
23:GW:17:ALA:HA	23:GW:35:ILE:HG23	1.98	0.44
42:DJ:80:THR:HB	42:DJ:82:LYS:HB2	1.99	0.44
37:FE:137:VAL:HG13	37:FE:137:VAL:O	2.17	0.44
1:GA:1131:G:OP1	10:GJ:82:GLY:HA2	2.17	0.44
21:AU:6:ARG:HG3	21:AU:7:ASP:N	2.31	0.44
33:DA:1022:A:H2'	33:DA:1023:U:O4'	2.18	0.44
1:AA:2311:A:N1	6:AF:43:ILE:CG2	2.80	0.44
1:AA:1813:G:H1'	3:AC:49:THR:CG2	2.45	0.44
33:FA:1007:U:C2'	33:FA:1008:U:H5'	2.45	0.44
4:AD:151:THR:CG2	4:AD:152:PRO:HD3	2.46	0.44
42:FJ:35:GLN:HG2	42:FJ:77:VAL:N	2.30	0.44
44:FL:63:VAL:HG22	44:FL:64:THR:N	2.31	0.44
16:EP:50:ARG:CG	16:EP:57:ALA:H	2.29	0.44
1:AA:2344:U:H4'	1:AA:2345:G:OP1	2.17	0.44
37:HE:111:MET:HA	37:HE:114:VAL:HG13	1.99	0.44
1:CA:2297:A:C2	1:CA:2321:U:H5	2.36	0.44
7:CG:24:THR:HG23	7:CG:34:ARG:HG2	1.99	0.44
16:AP:92:ARG:CG	16:AP:92:ARG:O	2.65	0.44
1:CA:528:A:OP2	10:CJ:116:ARG:NH2	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BE:110:ALA:HB1	37:BE:137:VAL:CG2	2.47	0.44
20:AT:29:THR:HB	20:AT:86:THR:HG22	1.99	0.44
44:BL:82:ILE:HG23	44:BL:95:TYR:HB3	1.99	0.44
16:CP:28:LYS:HB2	16:CP:82:SER:HB3	1.99	0.44
34:BB:209:VAL:O	34:BB:213:LEU:HB2	2.18	0.44
11:CK:71:ARG:CG	11:CK:105:ARG:NH2	2.80	0.44
6:GF:98:PHE:HA	6:GF:101:ARG:HG2	1.99	0.44
12:AL:2:ARG:HA	12:AL:5:THR:HG22	1.98	0.44
1:GA:1626:A:C2'	1:GA:1627:G:OP2	2.65	0.44
1:EA:674:G:H1'	5:EE:69:ARG:HD2	1.97	0.44
33:DA:451:A:C8	33:DA:452:A:C6	3.04	0.44
1:AA:1386:C:H1'	1:AA:1470:A:H1'	1.98	0.44
33:BA:76:G:N2	33:BA:77:A:O2'	2.50	0.44
34:FB:100:LEU:HD23	34:FB:178:LEU:CD2	2.47	0.44
36:HD:193:ALA:C	36:HD:195:ILE:H	2.21	0.44
33:DA:487:A:C5	33:DA:488:C:C2	3.06	0.44
36:DD:105:MET:SD	36:DD:143:VAL:CG1	3.06	0.44
33:DA:880:C:OP2	44:DL:3:THR:HG21	2.17	0.44
48:BP:52:LEU:HD23	48:BP:75:ILE:HG12	1.99	0.44
1:EA:42:A:H2'	1:EA:43:G:C5'	2.47	0.44
1:CA:594:U:H2'	1:CA:595:C:C6	2.51	0.44
40:HH:96:MET:SD	40:HH:130:ALA:HB1	2.56	0.44
43:HK:20:VAL:O	43:HK:35:THR:HG22	2.18	0.44
18:ER:64:VAL:O	18:ER:65:ALA:HB3	2.16	0.44
44:BL:66:TYR:CE2	44:BL:68:GLY:HA2	2.52	0.44
33:HA:1526:G:OP1	53:HU:39:GLU:HB2	2.17	0.44
1:GA:32:C:N4	1:GA:33:C:N4	2.65	0.44
42:DJ:85:ASP:OD2	42:DJ:89:ARG:NH2	2.50	0.44
33:FA:1386:G:H2'	33:FA:1387:G:H8	1.82	0.44
1:CA:2543:G:H2'	1:CA:2544:G:C8	2.53	0.44
41:HI:34:SER:O	41:HI:37:GLN:N	2.50	0.44
54:FV:350:LEU:HD13	54:FV:357:ARG:HG3	1.98	0.44
1:GA:371:A:O2'	24:GX:60:LYS:NZ	2.50	0.44
9:CI:20:SER:H	9:CI:21:PRO:CD	2.30	0.44
1:GA:1477:A:C2	1:GA:1515:A:C5	3.05	0.44
10:CJ:12:LYS:O	10:CJ:13:ARG:HB2	2.17	0.44
42:FJ:74:VAL:HG12	42:FJ:75:ASP:N	2.32	0.44
1:AA:880:G:N2	1:AA:898:C:C2	2.85	0.44
34:FB:29:PHE:HD1	34:FB:200:PRO:HG3	1.83	0.44
35:BC:172:ARG:NH1	35:BC:174:PRO:HG3	2.32	0.44
16:CP:64:SER:OG	16:CP:65:ASN:ND2	2.49	0.44
50:HR:63:ARG:HB3	50:HR:70:TYR:CZ	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1383:C:OP1	59:BA:1822:HOH:O	2.21	0.44
45:FM:91:HIS:HA	45:FM:109:ARG:HH22	1.83	0.44
1:AA:2138:G:N2	1:AA:2151:U:OP2	2.50	0.44
33:BA:756:C:HO2'	40:BH:2:SER:N	2.14	0.44
2:GB:111:U:H2'	2:GB:112:G:H8	1.82	0.44
1:AA:1279:G:H4'	14:AN:31:HIS:CD2	2.52	0.44
1:GA:317:G:C6	1:GA:318:C:C4	3.05	0.44
33:FA:1513:A:H2'	33:FA:1514:G:C8	2.52	0.44
1:AA:1878:G:H2'	1:AA:1879:C:C6	2.53	0.44
1:EA:1171:G:N2	1:EA:1179:G:C4	2.86	0.44
33:HA:1038:C:H2'	33:HA:1039:G:C8	2.52	0.44
14:GN:53:THR:HA	14:GN:56:LYS:HG3	1.99	0.44
42:BJ:85:ASP:OD1	42:BJ:89:ARG:NH2	2.49	0.44
20:GT:34:VAL:O	20:GT:34:VAL:HG23	2.16	0.44
33:FA:819:A:H4'	33:FA:820:U:OP2	2.18	0.44
1:AA:1252:G:N3	17:AQ:32:ARG:HD2	2.32	0.44
1:AA:1996:C:H4'	1:AA:1997:C:OP1	2.17	0.44
1:EA:2661:G:H5'	54:FV:19:ILE:HG13	1.99	0.44
23:CW:14:ASP:OD2	23:CW:16:GLU:OE1	2.35	0.44
33:DA:797:C:OP1	43:DK:126:LYS:HD2	2.17	0.44
23:EW:23:LYS:HE2	23:EW:24:ARG:H	1.83	0.44
16:GP:4:ILE:HG22	16:GP:8:GLU:HG3	1.99	0.44
1:EA:138:U:H5'	1:EA:139:U:H5''	1.99	0.44
54:FV:23:LYS:O	54:FV:24:THR:OG1	2.32	0.44
3:AC:68:ARG:HD3	3:AC:103:ILE:HD11	2.00	0.44
33:BA:687:A:C2	33:BA:704:A:C5	3.04	0.44
1:GA:1394:U:C4	1:GA:1395:A:C6	3.06	0.44
1:AA:2333:A:O4'	1:AA:2335:A:H1'	2.17	0.44
46:HN:41:ARG:CG	46:HN:42:TRP:N	2.80	0.44
23:EW:8:SER:O	23:EW:9:THR:HG22	2.17	0.44
1:AA:1068:G:C3'	1:AA:1069:A:H5''	2.48	0.44
1:CA:275:C:H3'	1:CA:276:U:H5''	2.00	0.44
16:GP:50:ARG:NE	16:GP:57:ALA:H	2.15	0.44
1:AA:1327:A:OP2	59:AA:3604:HOH:O	2.20	0.44
1:AA:657:U:H2'	1:AA:658:U:C6	2.52	0.44
1:EA:2529:G:O6	31:E4:32:LYS:NZ	2.51	0.44
37:DE:111:MET:O	37:DE:115:LEU:HB2	2.17	0.44
1:CA:2297:A:N1	1:CA:2321:U:C5	2.82	0.44
1:AA:2849:U:OP2	16:AP:92:ARG:HB2	2.17	0.44
15:CO:34:HIS:CD2	15:CO:54:VAL:HG23	2.53	0.44
33:HA:1244:G:C6	33:HA:1245:C:N4	2.86	0.44
33:FA:949:A:H1'	33:FA:1364:U:H5	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:GT:50:LEU:O	20:GT:51:PHE:HB2	2.17	0.44
33:BA:723:U:O2'	33:BA:724:G:H5'	2.16	0.44
20:CT:29:THR:HB	20:CT:86:THR:HA	1.98	0.44
1:EA:2800:A:H3'	1:EA:2801:G:H5''	2.00	0.44
43:DK:52:PHE:CE2	43:DK:65:VAL:HG11	2.53	0.44
33:BA:881:G:OP2	44:BL:9:ARG:NH2	2.51	0.44
1:AA:1389:G:C2	1:AA:1390:U:C2	3.04	0.44
33:DA:354:G:C4	33:DA:355:C:C5	3.05	0.44
41:FI:129:LYS:HE2	41:FI:130:ARG:HG2	1.99	0.44
33:BA:844:G:C3'	33:BA:845:A:H5''	2.46	0.44
33:HA:68:G:C6	33:HA:69:G:H1'	2.52	0.44
7:EG:108:PHE:CZ	7:EG:151:ARG:NH1	2.86	0.44
1:AA:2071:A:H2'	1:AA:2072:C:C6	2.52	0.44
1:EA:2657:A:N7	1:EA:2658:C:C5	2.85	0.44
3:CC:123:ILE:HG12	38:DF:80:PHE:CD1	2.53	0.44
4:GD:70:LYS:O	4:GD:71:ALA:HB3	2.18	0.44
33:HA:1413:A:H2'	33:HA:1414:U:O4'	2.17	0.44
34:HB:49:PHE:HB2	34:HB:212:TYR:CE1	2.53	0.44
35:FC:123:GLN:HB3	35:FC:128:VAL:HG13	2.00	0.44
17:AQ:84:LYS:O	17:AQ:86:SER:N	2.51	0.44
1:GA:1746:A:H2'	1:GA:1747:U:C6	2.52	0.44
1:CA:2267:A:H5''	1:CA:2268:A:C5'	2.47	0.44
40:HH:78:VAL:HG11	40:HH:125:ILE:CD1	2.47	0.44
24:GX:2:ARG:CD	24:GX:29:LEU:HD12	2.47	0.44
6:GF:43:ILE:HD12	6:GF:77:LYS:HD2	1.99	0.44
5:EE:111:GLU:HA	5:EE:114:ARG:NH1	2.33	0.44
33:FA:295:C:H2'	33:FA:296:U:H6	1.83	0.44
1:GA:2840:C:H2'	1:GA:2841:C:H6	1.82	0.44
1:AA:2291:U:H2'	1:AA:2292:U:C6	2.52	0.44
46:HN:6:MET:HE2	46:HN:63:ARG:HH22	1.82	0.44
1:AA:1519:G:C6	1:AA:1520:U:C4	3.06	0.44
1:CA:1286:A:C6	1:CA:1329:U:C2	3.05	0.44
33:BA:613:C:P	36:BD:81:ARG:HH11	2.41	0.44
33:BA:160:A:H2'	33:BA:161:A:O4'	2.16	0.44
3:EC:196:ASN:O	3:EC:197:ALA:HB3	2.17	0.44
3:CC:122:ALA:O	3:CC:127:ASN:ND2	2.45	0.44
1:EA:581:C:H2'	1:EA:582:A:C8	2.53	0.44
33:HA:620:C:H1'	36:HD:132:ILE:CD1	2.47	0.44
48:BP:6:LEU:HG	48:BP:17:TYR:HB3	1.99	0.44
15:AO:88:LYS:O	15:AO:89:ASP:HB2	2.16	0.44
4:CD:121:THR:O	4:CD:122:VAL:HB	2.18	0.44
54:DV:660:LEU:O	54:DV:662:GLU:N	2.43	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:81:A:H5'	33:HA:90:C:N4	2.32	0.44
47:HO:35:GLN:HB3	47:HO:59:MET:HE1	2.00	0.44
38:DF:49:TYR:HB3	50:DR:74:HIS:CG	2.52	0.44
1:EA:1223:G:C6	1:EA:1227:G:C6	3.06	0.44
33:DA:1421:G:C2	33:DA:1480:A:N3	2.85	0.44
1:GA:2220:U:H2'	1:GA:2221:G:C8	2.52	0.44
39:HG:23:LEU:HD21	39:HG:47:LEU:HD21	1.99	0.44
10:CJ:76:HIS:CE1	10:CJ:85:LYS:HB2	2.52	0.44
19:CS:18:ARG:HG3	19:CS:76:VAL:HG13	1.99	0.44
2:CB:13:G:N2	2:CB:16:G:N3	2.65	0.44
33:BA:43:C:H2'	33:BA:44:A:O4'	2.17	0.44
1:GA:2615:U:C2	27:G0:3:GLN:HA	2.51	0.44
33:BA:49:U:O4	33:BA:365:U:H5	2.00	0.44
20:AT:48:GLN:O	20:AT:52:GLU:HA	2.17	0.44
1:EA:1312:U:C2	1:EA:1603:A:C2	3.06	0.44
34:FB:128:LEU:O	34:FB:129:THR:HG23	2.18	0.44
1:AA:493:G:H2'	1:AA:494:G:O4'	2.18	0.44
34:HB:89:PHE:HB3	34:HB:149:GLY:O	2.17	0.44
6:EF:100:GLU:O	6:EF:104:THR:HG22	2.18	0.44
33:DA:636:U:H5'	49:DQ:6:ARG:HH12	1.82	0.44
10:EJ:55:ILE:HG13	10:EJ:56:VAL:N	2.32	0.44
33:BA:1116:U:HO2'	41:BI:110:GLN:CD	2.17	0.44
1:EA:21:A:O2'	1:EA:22:C:H5'	2.17	0.44
6:CF:128:SER:HA	6:CF:154:THR:HA	1.99	0.44
33:HA:408:A:OP1	36:HD:110:THR:HG21	2.17	0.44
35:FC:140:ASN:HA	35:FC:143:ARG:HB3	1.99	0.44
52:HT:58:VAL:HG13	52:HT:72:ALA:HA	1.99	0.44
1:GA:2543:G:C6	1:GA:2544:G:C6	3.05	0.44
40:DH:11:LEU:CD1	40:DH:77:ARG:HG2	2.48	0.44
27:E0:24:VAL:O	27:E0:26:SER:N	2.40	0.44
1:GA:515:A:H2	1:GA:1260:A:N3	2.14	0.44
9:EI:85:ILE:H	9:EI:85:ILE:HD12	1.81	0.44
36:HD:161:LEU:H	36:HD:161:LEU:HD22	1.82	0.44
35:HC:123:GLN:HB3	35:HC:128:VAL:HG11	1.99	0.44
1:AA:2199:A:H3'	1:AA:2200:C:H6	1.82	0.44
6:EF:142:TYR:OH	45:FM:71:ARG:HG3	2.17	0.44
33:DA:857:C:OP2	59:DA:1814:HOH:O	2.21	0.44
10:GJ:44:TYR:CD2	17:GQ:63:ARG:HG2	2.53	0.44
34:BB:134:LEU:O	34:BB:138:ARG:HG2	2.17	0.44
1:AA:1187:G:HO2'	1:AA:1188:U:H6	1.66	0.44
1:CA:2105:U:C3'	1:CA:2105:U:C6	3.00	0.44
1:EA:881:G:C2	1:EA:882:G:C8	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:EW:25:PHE:O	23:EW:65:LYS:HA	2.17	0.44
1:GA:974:G:H8	1:GA:990:A:H62	1.66	0.44
12:EL:95:LEU:HD13	12:EL:101:ILE:HD11	1.98	0.44
6:AF:3:LEU:HD12	6:AF:172:PHE:CD1	2.53	0.44
1:AA:2311:A:C2	6:AF:43:ILE:CG2	3.01	0.44
6:AF:36:ASN:CG	6:AF:37:MET:N	2.71	0.44
1:GA:983:A:N6	1:GA:984:A:C2	2.86	0.44
46:FN:21:PHE:HA	46:FN:25:ALA:HB3	1.98	0.44
1:GA:142:A:H5''	1:GA:142:A:H8	1.82	0.44
1:EA:2478:A:C8	1:EA:2479:U:C5	3.06	0.44
45:HM:57:ARG:CA	45:HM:60:VAL:HG12	2.47	0.44
1:EA:1913:A:N7	33:FA:1494:G:H4'	2.31	0.44
14:AN:73:ASN:HA	14:AN:76:VAL:CG1	2.46	0.44
39:FG:70:ARG:CG	39:FG:96:ARG:HG2	2.46	0.44
33:FA:1314:C:OP2	51:FS:6:LYS:HD2	2.18	0.44
1:GA:1262:A:OP2	19:GS:99:ARG:NH2	2.51	0.44
38:HF:38:ARG:HG2	38:HF:39:LEU:N	2.32	0.44
1:CA:2365:G:H4'	23:CW:59:PHE:CZ	2.53	0.44
1:EA:1073:A:C2	1:EA:1074:G:H1'	2.52	0.44
16:CP:82:SER:C	16:CP:83:ILE:HG22	2.38	0.44
33:HA:1314:C:OP2	51:HS:6:LYS:HD2	2.17	0.44
28:E1:33:LEU:H	28:E1:51:ALA:HB2	1.81	0.44
1:GA:2819:G:H2'	1:GA:2821:A:N7	2.31	0.44
11:EK:18:ARG:HB2	11:EK:45:GLU:HG2	1.97	0.44
18:GR:42:ALA:HA	18:GR:46:GLU:CB	2.47	0.44
28:C1:50:GLU:CG	28:C1:51:ALA:N	2.80	0.44
1:EA:481:G:C4	1:EA:507:A:C2	3.05	0.44
1:CA:138:U:H5'	1:CA:139:U:H5''	1.98	0.44
5:AE:164:LEU:HB3	5:AE:167:VAL:CG1	2.47	0.44
45:FM:4:ILE:O	45:FM:6:GLY:N	2.46	0.44
36:DD:197:GLU:HA	36:DD:200:ILE:CG2	2.48	0.44
1:AA:471:A:OP1	5:AE:79:ARG:NH1	2.43	0.44
2:AB:56:G:OP1	6:AF:23:SER:HB2	2.17	0.44
1:AA:1394:U:H4'	1:AA:1603:A:H4'	2.00	0.44
24:EX:34:SER:OG	24:EX:34:SER:O	2.36	0.44
15:CO:107:ALA:O	15:CO:111:ARG:HG2	2.18	0.44
38:HF:5:GLU:OE2	50:HR:24:LYS:HE2	2.17	0.44
1:EA:1239:G:H2'	1:EA:1240:U:O4'	2.17	0.44
9:CI:41:PHE:HA	9:CI:68:PHE:CZ	2.51	0.44
34:DB:9:LEU:CD1	34:DB:42:LEU:HD13	2.47	0.44
1:EA:752:A:P	29:E2:3:ARG:HH12	2.40	0.44
8:GH:31:VAL:HB	8:GH:32:PRO:CD	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:HS:64:ASP:N	51:HS:64:ASP:OD1	2.50	0.44
33:DA:1377:A:C6	39:DG:7:ILE:CD1	3.01	0.44
14:GN:10:LEU:N	14:GN:10:LEU:HD22	2.33	0.44
33:HA:77:A:H2'	33:HA:78:A:H5'	1.99	0.44
19:CS:18:ARG:HA	19:CS:21:ALA:HB3	1.99	0.44
13:AM:133:LYS:O	13:AM:134:THR:HB	2.16	0.44
13:CM:67:VAL:HG11	13:CM:102:LEU:HD12	2.00	0.44
4:AD:91:THR:O	4:AD:93:GLY:N	2.42	0.44
1:GA:630:G:N2	1:GA:632:A:H3'	2.32	0.44
1:GA:2578:G:H1'	4:GD:144:GLY:HA2	2.00	0.44
1:AA:2758:A:C2'	1:AA:2759:G:H5'	2.48	0.44
30:E3:26:ALA:O	30:E3:27:ASN:HB2	2.18	0.44
31:C4:7:VAL:HG23	31:C4:8:LYS:H	1.83	0.44
1:AA:463:G:N2	1:AA:465:G:H3'	2.31	0.44
36:BD:97:ARG:HB3	36:BD:99:ASP:OD1	2.17	0.44
54:DV:669:GLN:O	54:DV:672:SER:N	2.51	0.44
33:HA:1273:C:H2'	33:HA:1274:A:O4'	2.17	0.44
1:AA:1063:G:H2'	1:AA:1064:C:O4'	2.16	0.44
33:DA:413:G:H1'	33:DA:428:G:H21	1.82	0.44
22:EV:2:PHE:CD1	22:EV:50:MET:HE3	2.52	0.44
37:DE:35:ALA:CB	37:DE:60:ILE:HA	2.47	0.44
33:HA:1193:G:OP2	35:HC:167:TRP:HH2	2.01	0.44
1:CA:1754:A:O3'	16:CP:102:ARG:NH2	2.50	0.44
13:AM:4:PRO:CG	13:AM:70:ASP:HA	2.47	0.44
50:DR:27:ALA:HA	50:DR:30:LYS:HE3	1.99	0.44
1:GA:1027:A:C6	1:GA:1126:A:C4	3.05	0.44
39:HG:95:ARG:NH2	39:HG:99:LEU:HD21	2.33	0.44
54:FV:100:GLU:OE1	54:FV:132:LYS:NZ	2.51	0.44
1:CA:283:G:C2	1:CA:284:U:H1'	2.52	0.44
45:DM:20:THR:HA	45:DM:25:VAL:HG23	1.99	0.44
28:C1:8:ILE:HD11	28:C1:22:THR:HG23	1.99	0.44
36:FD:62:ARG:HH21	36:FD:68:LEU:HA	1.82	0.44
33:DA:543:U:C2	33:DA:544:G:C8	3.05	0.44
8:GH:14:SER:OG	8:GH:17:ASP:OD2	2.28	0.44
41:DI:89:GLU:HG3	41:DI:90:TYR:N	2.33	0.44
33:HA:598:U:H4'	40:HH:86:TYR:CD2	2.53	0.44
5:GE:118:LEU:HA	5:GE:186:VAL:HG13	2.00	0.44
1:CA:686:U:OP2	59:CA:3708:HOH:O	2.20	0.44
6:CF:24:VAL:O	6:CF:27:VAL:HG12	2.17	0.44
1:AA:1256:G:C6	1:AA:1257:C:N4	2.85	0.44
33:HA:602:A:H2'	33:HA:603:U:C6	2.53	0.44
1:GA:2834:G:H2'	1:GA:2879:A:N6	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:315:G:H2'	1:CA:316:C:C6	2.52	0.44
1:EA:945:A:C4	1:EA:2448:A:C2	3.05	0.44
32:E5:106:PHE:CG	32:E5:107:GLU:N	2.86	0.44
10:AJ:44:TYR:HB2	17:AQ:63:ARG:HB3	1.99	0.44
43:BK:127:ARG:O	53:BU:34:ARG:CZ	2.64	0.44
43:HK:68:GLU:C	43:HK:70:CYS:H	2.15	0.44
23:CW:35:ILE:O	23:CW:36:ILE:C	2.56	0.44
23:EW:41:GLY:C	23:EW:43:LYS:N	2.70	0.44
1:GA:504:A:O2'	1:GA:505:A:P	2.75	0.44
36:DD:26:ARG:O	36:DD:27:ALA:HB2	2.17	0.44
54:FV:20:ASP:O	54:FV:22:GLY:N	2.44	0.44
43:BK:111:THR:HG22	53:BU:5:LYS:HG2	2.00	0.44
1:CA:1913:A:H2'	55:DW:4:SER:CA	2.42	0.44
23:GW:39:GLN:HG2	23:GW:40:ARG:N	2.32	0.44
1:AA:2548:U:C4	1:AA:2549:G:N7	2.86	0.44
54:HV:632:ILE:HG23	54:HV:642:LEU:CD2	2.47	0.44
9:GI:57:VAL:O	9:GI:68:PHE:HB2	2.18	0.44
1:AA:2313:C:H4'	6:AF:36:ASN:CG	2.38	0.44
33:FA:1033:G:C2'	33:FA:1034:G:C5'	2.95	0.44
33:FA:1033:G:C2'	33:FA:1034:G:H5'	2.46	0.44
9:GI:13:ALA:H	9:GI:23:VAL:HG13	1.83	0.44
1:GA:1865:U:C5	1:GA:1875:G:C2	3.05	0.44
6:GF:7:TYR:HA	6:GF:11:VAL:CG2	2.47	0.44
33:FA:982:U:H4'	33:FA:983:A:O5'	2.17	0.44
33:BA:1513:A:H2'	33:BA:1514:G:H8	1.79	0.44
6:CF:151:LEU:C	6:CF:151:LEU:HD12	2.38	0.44
43:BK:42:LEU:HD13	43:BK:77:TYR:HD2	1.82	0.44
36:DD:65:TYR:CE2	36:DD:94:LEU:HB3	2.53	0.44
33:DA:621:A:C6	33:DA:622:A:C6	3.06	0.44
36:BD:65:TYR:CD1	36:BD:65:TYR:N	2.86	0.44
37:DE:110:ALA:O	37:DE:111:MET:CB	2.65	0.44
9:GI:79:LEU:HD11	9:GI:131:THR:HG22	2.00	0.44
1:CA:1069:A:C5	1:CA:1073:A:C5	3.06	0.44
1:AA:2031:A:C6	1:AA:2498:C:H1'	2.51	0.44
4:ED:68:PHE:CE1	4:ED:75:ALA:HA	2.53	0.44
53:BU:41:PRO:O	53:BU:45:ARG:N	2.50	0.44
35:HC:42:TYR:HD2	35:HC:43:LEU:HD12	1.82	0.44
9:CI:107:GLU:HA	9:CI:110:GLN:CB	2.47	0.44
2:CB:116:G:H4'	15:CO:54:VAL:O	2.18	0.44
33:HA:1463:U:H2'	33:HA:1464:U:C6	2.52	0.44
12:AL:122:VAL:HG22	12:AL:142:ILE:HG12	1.99	0.44
7:GG:27:GLY:HA3	7:GG:78:VAL:HG12	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1916:A:H2'	1:GA:1917:U:O4'	2.18	0.44
1:AA:655:A:N3	1:AA:656:G:H1'	2.33	0.44
1:AA:2376:A:N1	15:AO:92:PHE:HD2	2.16	0.44
1:EA:2037:A:H2'	1:EA:2038:G:C8	2.52	0.44
1:GA:1482:G:H1	1:GA:1508:A:N6	2.15	0.44
16:EP:91:VAL:O	16:EP:92:ARG:HG2	2.17	0.44
33:FA:1039:G:H2'	33:FA:1040:U:H6	1.82	0.44
33:DA:210:C:O2'	33:DA:211:G:N2	2.50	0.44
7:EG:118:ALA:O	7:EG:120:ILE:N	2.44	0.44
41:BI:38:TYR:CD1	41:BI:39:PHE:HD2	2.36	0.44
32:A5:51:TYR:CE1	32:A5:52:MET:HG2	2.52	0.44
11:EK:61:VAL:CG2	11:EK:87:LEU:HD11	2.47	0.44
38:FF:18:VAL:HB	38:FF:19:PRO:CD	2.47	0.44
1:GA:2705:A:H2'	1:GA:2706:A:O4'	2.18	0.44
10:EJ:12:LYS:O	10:EJ:13:ARG:CB	2.66	0.44
15:AO:40:ILE:HA	15:AO:47:VAL:HA	1.99	0.44
5:GE:10:SER:O	5:GE:11:ALA:HB3	2.17	0.44
51:FS:49:ILE:H	51:FS:49:ILE:HD12	1.83	0.44
22:CV:80:HIS:CD2	22:CV:83:LYS:HB2	2.53	0.44
1:CA:2294:G:P	15:CO:94:ARG:HH12	2.40	0.44
1:GA:1684:G:H2'	1:GA:1685:C:C6	2.52	0.44
7:GG:1:SER:O	7:GG:3:VAL:N	2.50	0.44
33:BA:511:C:C2	33:BA:512:U:C5	3.05	0.44
1:GA:29:U:H2'	1:GA:30:G:C8	2.51	0.44
36:DD:192:SER:OG	36:DD:193:ALA:N	2.46	0.44
1:EA:60:G:C6	1:EA:74:A:C6	3.06	0.44
33:BA:436:C:H2'	33:BA:437:U:H6	1.81	0.44
36:FD:17:THR:HG22	36:FD:18:ASP:N	2.33	0.44
33:DA:1316:G:N2	33:DA:1318:A:H3'	2.33	0.44
11:EK:99:ILE:C	11:EK:100:PHE:HD1	2.21	0.44
54:HV:227:ALA:HB1	54:HV:234:MET:CB	2.48	0.44
34:FB:195:VAL:HG11	34:FB:198:VAL:HA	2.00	0.44
37:HE:132:ASN:O	37:HE:136:VAL:HG12	2.17	0.44
34:FB:9:LEU:HD23	34:FB:9:LEU:O	2.17	0.44
4:AD:169:ARG:O	4:AD:170:VAL:HG13	2.18	0.44
54:DV:112:VAL:HG12	54:DV:113:TYR:N	2.32	0.44
1:GA:56:A:C2	1:GA:57:C:C2	3.06	0.44
3:GC:140:VAL:CG1	3:GC:189:ALA:HB1	2.47	0.44
1:AA:843:G:H2'	1:AA:844:A:C8	2.52	0.44
33:BA:1191:A:OP1	35:BC:4:LYS:NZ	2.42	0.44
1:GA:2614:A:C4	27:G0:1:ALA:HB1	2.53	0.44
36:FD:139:PRO:O	36:FD:140:ASN:HB2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DH:46:ILE:HD12	40:DH:61:LEU:HD22	2.00	0.44
27:C0:38:LEU:HB2	27:C0:41:HIS:HB2	1.98	0.44
3:GC:109:LEU:O	3:GC:110:LYS:HB3	2.18	0.44
38:HF:10:VAL:HG12	38:HF:11:HIS:N	2.33	0.44
2:CB:65:U:C4	2:CB:108:A:C4	3.05	0.44
13:EM:132:THR:HG23	13:EM:133:LYS:N	2.33	0.44
54:HV:464:LEU:O	54:HV:467:ASP:HB3	2.17	0.44
7:AG:155:PRO:O	7:AG:170:THR:HA	2.18	0.44
7:AG:23:ILE:HG22	7:AG:24:THR:N	2.33	0.44
5:CE:12:LEU:HD13	5:CE:12:LEU:O	2.17	0.44
1:GA:1053:C:C2	1:GA:1054:A:C8	3.06	0.44
1:AA:2081:U:H2'	1:AA:2082:A:C8	2.53	0.44
7:EG:60:GLY:O	7:EG:61:TRP:HB2	2.18	0.44
33:FA:681:A:C2	33:FA:710:G:C2	3.05	0.44
36:DD:20:PHE:CD1	36:DD:20:PHE:N	2.84	0.44
32:E5:31:ARG:HB3	32:E5:108:VAL:HG22	1.99	0.44
17:CQ:63:ARG:HH12	17:CQ:96:ASP:CA	2.31	0.44
6:AF:126:ASN:ND2	6:AF:157:THR:H	2.16	0.44
1:AA:2325:G:C6	1:AA:2326:C:N4	2.85	0.44
41:BI:7:TYR:HE1	41:BI:18:ARG:HB2	1.83	0.44
33:BA:707:U:H5''	43:BK:22:HIS:ND1	2.32	0.44
5:AE:178:VAL:CG2	5:AE:179:SER:N	2.81	0.44
54:DV:591:LEU:HD13	54:DV:591:LEU:O	2.17	0.44
1:AA:273:G:H2'	1:AA:274:C:C6	2.52	0.44
1:GA:2336:A:N6	23:GW:40:ARG:HB3	2.32	0.44
6:AF:18:GLU:HB3	6:AF:19:PHE:CD1	2.53	0.44
2:AB:43:C:H4'	6:AF:62:GLN:HE21	1.82	0.44
20:AT:50:LEU:O	20:AT:51:PHE:HB2	2.18	0.44
44:BL:38:TYR:HE1	44:BL:54:ARG:HG3	1.83	0.44
1:GA:1328:A:H2'	1:GA:1330:C:C4	2.53	0.44
46:FN:53:ARG:C	46:FN:55:SER:N	2.71	0.44
33:BA:1314:C:C2	33:BA:1315:U:C5	3.06	0.44
18:ER:1:MET:SD	18:ER:101:ILE:HG21	2.58	0.44
36:HD:13:ARG:HG2	36:HD:34:ILE:HA	2.00	0.44
33:FA:706:A:H4'	43:FK:31:ILE:HD11	2.00	0.44
6:GF:110:ILE:HG12	6:GF:136:ILE:HG21	2.00	0.44
41:DI:51:PRO:HB3	41:DI:84:THR:HG22	1.98	0.44
1:CA:2799:A:N6	1:CA:2801:G:C6	2.86	0.44
23:CW:49:ASN:ND2	23:CW:50:VAL:O	2.50	0.44
34:BB:98:GLY:C	34:BB:100:LEU:H	2.21	0.44
12:AL:109:LYS:HB3	12:AL:111:ILE:CD1	2.48	0.44
7:CG:132:LEU:HD23	7:CG:132:LEU:N	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BD:151:LYS:HB3	36:BD:178:MET:SD	2.58	0.44
13:GM:50:ARG:HA	13:GM:53:MET:HE2	1.99	0.44
24:EX:70:LEU:HD13	24:EX:75:GLU:HB2	1.98	0.44
5:AE:108:ILE:HD12	12:AL:2:ARG:CZ	2.48	0.44
6:EF:118:ALA:HB1	6:EF:166:ARG:CD	2.47	0.44
44:DL:24:LEU:HG	44:DL:25:GLU:N	2.33	0.44
34:BB:86:CYS:SG	34:BB:88:GLN:NE2	2.90	0.44
33:DA:495:A:N1	33:DA:496:A:N6	2.65	0.44
1:EA:545:U:H3'	1:EA:546:U:H4'	1.99	0.44
33:DA:60:A:O3'	52:DT:5:LYS:NZ	2.44	0.44
1:EA:44:A:C2	1:EA:45:G:C4	3.05	0.44
1:AA:1197:G:H2'	1:AA:1198:U:C6	2.53	0.44
33:DA:487:A:C6	33:DA:488:C:C2	3.05	0.44
17:GQ:81:GLY:HA2	17:GQ:116:LEU:CD1	2.47	0.44
48:FP:43:ALA:HB1	48:FP:46:LYS:HZ2	1.82	0.44
1:EA:1857:G:O2'	1:EA:1858:A:P	2.76	0.44
33:BA:858:G:O2'	33:BA:859:G:H5'	2.17	0.44
39:HG:145:ALA:C	39:HG:147:ALA:H	2.20	0.44
11:CK:47:ILE:HG23	11:CK:48:PRO:N	2.33	0.44
34:BB:30:ILE:HG23	34:BB:32:GLY:H	1.82	0.44
54:HV:200:VAL:HG23	54:HV:201:THR:N	2.32	0.44
1:GA:1773:A:N7	1:GA:1829:A:H1'	2.32	0.44
33:HA:880:C:P	44:HL:5:ASN:HD22	2.40	0.44
20:ET:19:LYS:O	20:ET:23:ALA:N	2.49	0.44
32:A5:88:HIS:HB3	32:A5:89:PRO:HD3	1.98	0.44
24:CX:52:ALA:O	24:CX:53:LYS:CB	2.66	0.44
41:FI:94:LEU:O	41:FI:96:SER:N	2.48	0.44
18:AR:5:PHE:HE1	18:AR:14:VAL:HG21	1.83	0.44
1:EA:2485:G:H5''	13:EM:45:GLN:HE21	1.80	0.44
1:GA:2292:U:H2'	1:GA:2293:G:C8	2.53	0.44
15:CO:24:THR:HG22	15:CO:42:PRO:CD	2.48	0.44
37:DE:56:VAL:O	37:DE:60:ILE:HG13	2.17	0.44
1:AA:2472:G:H2'	1:AA:2475:C:H42	1.82	0.44
1:EA:1090:A:C2	1:EA:1102:C:H1'	2.53	0.44
1:EA:2855:C:H2'	1:EA:2856:A:H8	1.82	0.44
39:HG:49:THR:O	39:HG:53:ARG:HB2	2.17	0.44
1:AA:2108:A:O2'	1:AA:2109:U:O5'	2.29	0.44
1:AA:720:U:H2'	1:AA:721:A:C8	2.52	0.44
42:DJ:88:MET:O	42:DJ:90:LEU:N	2.49	0.44
1:GA:2038:G:H2'	1:GA:2039:U:O4'	2.18	0.44
1:GA:2594:C:C2	1:GA:2600:A:C2	3.06	0.44
54:DV:532:LYS:HD3	54:DV:534:TYR:H	1.83	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:124:GLU:OE2	54:DV:677:ARG:NH1	2.51	0.44
53:HU:14:VAL:HG23	53:HU:16:LEU:HG	1.99	0.44
33:DA:982:U:H4'	33:DA:983:A:O5'	2.18	0.44
1:GA:2783:U:H2'	1:GA:2784:U:C6	2.53	0.44
33:HA:1375:A:OP1	39:HG:12:ILE:CD1	2.65	0.44
1:GA:1486:U:H2'	1:GA:1487:U:C6	2.52	0.44
38:DF:18:VAL:HG21	38:DF:58:HIS:CD2	2.52	0.44
26:CZ:7:THR:O	26:CZ:54:VAL:HA	2.17	0.44
33:BA:561:U:OP2	59:BA:1814:HOH:O	2.21	0.44
1:CA:2141:G:N1	1:CA:2150:C:O2	2.46	0.44
1:AA:121:G:C2	1:AA:131:A:C5	3.06	0.44
33:BA:129:A:H1'	33:BA:130:A:C8	2.52	0.44
1:EA:2281:A:O2'	1:EA:2282:G:H5'	2.18	0.44
44:FL:74:LEU:HA	44:FL:78:SER:OG	2.17	0.44
9:EI:5:GLN:NE2	9:EI:61:TYR:HA	2.32	0.44
41:HI:120:LYS:O	41:HI:121:ALA:HB3	2.17	0.44
47:FO:46:HIS:O	47:FO:48:LYS:N	2.46	0.44
1:AA:692:C:C2	1:AA:771:G:C2	3.06	0.44
33:DA:282:A:C8	33:DA:283:U:C5	3.06	0.44
59:EA:3237:HOH:O	5:EE:81:GLY:HA2	2.18	0.44
1:CA:1866:A:H2'	1:CA:1867:G:O4'	2.18	0.44
33:BA:1037:C:C2	33:BA:1038:C:C5	3.06	0.44
1:GA:2820:A:OP2	14:GN:2:ARG:NH2	2.51	0.44
1:EA:1198:U:O3'	17:EQ:4:LYS:HE3	2.17	0.44
33:FA:619:U:N3	36:FD:131:ASN:HB3	2.32	0.44
1:AA:2727:A:C6	1:AA:2728:U:C4	3.06	0.44
33:BA:108:G:N2	33:BA:108:G:OP2	2.49	0.44
5:GE:43:THR:OG1	5:GE:43:THR:O	2.36	0.44
54:BV:200:VAL:HG23	54:BV:201:THR:HG23	2.00	0.44
1:GA:714:U:H5'	1:GA:715:A:OP2	2.17	0.44
17:CQ:91:ARG:NE	17:CQ:93:ILE:HG21	2.32	0.44
1:GA:1188:U:H4'	18:GR:81:LYS:O	2.17	0.44
33:HA:1006:G:H2'	33:HA:1007:U:C6	2.53	0.44
23:EW:19:ARG:HE	23:EW:22:VAL:HB	1.82	0.44
23:EW:17:ALA:HA	23:EW:35:ILE:HG23	1.98	0.44
16:CP:50:ARG:NH1	16:CP:75:THR:HG21	2.32	0.44
13:EM:1:MET:O	13:EM:2:LEU:HB3	2.18	0.44
33:BA:680:C:C2	33:BA:711:G:N2	2.86	0.44
33:BA:74:A:C2	33:BA:97:G:C4	3.06	0.44
33:BA:320:A:C2	33:BA:334:C:N3	2.85	0.44
6:AF:7:TYR:OH	6:AF:27:VAL:CG1	2.65	0.44
41:HI:94:LEU:O	41:HI:96:SER:N	2.45	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:790:U:P	59:EA:3752:HOH:O	2.74	0.44
33:HA:72:A:C2'	33:HA:73:C:H5''	2.48	0.44
33:FA:1492:A:C3'	33:FA:1493:A:C5'	2.95	0.44
43:BK:87:LYS:HE2	43:BK:113:VAL:HG23	2.00	0.44
42:HJ:6:ILE:HB	42:HJ:76:ILE:HB	2.00	0.44
33:FA:481:G:H4'	33:FA:481:G:OP1	2.17	0.44
33:BA:1314:C:N4	51:BS:4:SER:HA	2.32	0.44
6:GF:59:ILE:HD13	6:GF:137:PHE:CE2	2.53	0.44
34:HB:30:ILE:CG2	34:HB:32:GLY:H	2.31	0.44
43:FK:31:ILE:HB	43:FK:46:THR:HG22	1.99	0.44
33:DA:922:G:H2'	33:DA:923:A:C8	2.53	0.44
17:EQ:86:SER:O	17:EQ:87:VAL:C	2.56	0.44
41:DI:11:ARG:HB2	41:DI:15:SER:O	2.18	0.44
33:DA:1477:U:H2'	33:DA:1478:U:C6	2.52	0.44
33:BA:677:U:C4	33:BA:678:U:C4	3.05	0.44
6:AF:65:LEU:HD12	6:AF:66:ILE:N	2.32	0.44
20:AT:14:PRO:HA	20:AT:32:LEU:HB3	2.00	0.44
15:AO:111:ARG:HD3	15:AO:117:PHE:CE1	2.52	0.44
40:FH:7:ILE:HD11	40:FH:32:LEU:HD23	2.00	0.44
1:EA:419:U:H2'	1:EA:420:C:H6	1.82	0.44
9:EI:34:ILE:HA	9:EI:37:PHE:CD2	2.52	0.44
14:CN:51:LEU:HD21	14:CN:70:THR:HG22	1.98	0.44
41:DI:34:SER:HB3	41:DI:37:GLN:HG2	1.99	0.44
33:DA:375:U:H4'	48:DP:17:TYR:CE2	2.53	0.44
24:AX:39:VAL:HG13	24:AX:46:VAL:HG23	1.98	0.44
1:CA:2315:G:H2'	1:CA:2316:G:H8	1.81	0.44
43:FK:96:THR:HG23	43:FK:97:ILE:N	2.33	0.44
7:CG:25:ILE:CG2	7:CG:78:VAL:HG21	2.47	0.44
10:AJ:25:LEU:HB2	10:AJ:62:VAL:CG2	2.48	0.44
34:HB:212:TYR:HA	34:HB:215:ALA:HB3	2.00	0.44
33:BA:1133:G:N2	33:BA:1142:G:H1'	2.33	0.44
15:CO:79:ALA:HB2	15:CO:110:ALA:HA	1.98	0.44
1:CA:880:G:H1	1:CA:897:C:N4	2.15	0.44
34:FB:209:VAL:HG23	34:FB:210:THR:N	2.33	0.44
54:FV:255:ARG:HG2	54:FV:261:ILE:HG22	2.00	0.44
1:GA:1535:A:H4'	1:GA:1536:C:OP2	2.16	0.44
1:CA:1983:G:O2'	1:CA:1984:G:H5'	2.18	0.44
33:DA:376:G:H5''	48:DP:5:ARG:HB2	1.99	0.44
14:AN:94:TYR:N	14:AN:94:TYR:CD1	2.85	0.44
36:DD:168:PRO:HB2	36:DD:171:LEU:CD1	2.48	0.44
1:EA:1057:A:C6	1:EA:1086:A:C2	3.05	0.44
1:CA:2760:C:C2'	1:CA:2761:A:H5'	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:181:A:H2'	1:EA:182:A:C8	2.53	0.44
1:AA:2318:G:C6	1:AA:2319:G:C6	3.06	0.44
40:BH:3:MET:HE1	40:BH:6:PRO:HA	1.99	0.44
53:FU:18:ARG:O	53:FU:21:ARG:N	2.51	0.44
18:AR:28:ALA:HB3	18:AR:31:GLU:HG2	2.00	0.44
33:BA:1524:C:H2'	33:BA:1525:G:C8	2.52	0.44
1:EA:2508:G:H2'	1:EA:2509:G:H8	1.83	0.44
22:CV:30:ILE:HD11	22:CV:63:ILE:HD13	1.99	0.44
8:AH:27:ARG:HH12	24:AX:63:ILE:CG1	2.31	0.44
34:BB:82:ALA:HB1	34:BB:217:ALA:CB	2.48	0.44
1:AA:2207:C:H2'	1:AA:2208:C:H6	1.83	0.44
44:DL:110:ARG:HB3	44:DL:119:VAL:HG21	1.99	0.44
54:HV:90:PRO:HG2	54:HV:98:GLU:HB2	2.00	0.44
34:BB:161:PHE:HA	34:BB:183:PHE:O	2.17	0.44
1:EA:2489:U:O2	1:EA:2491:U:C4	2.71	0.44
1:GA:335:C:H5''	21:GU:81:ARG:HD3	1.99	0.44
33:HA:636:U:H2'	33:HA:637:C:C6	2.53	0.44
51:BS:33:THR:HB	51:BS:35:SER:H	1.82	0.44
33:HA:1347:G:N2	33:HA:1373:G:H2'	2.33	0.44
35:FC:107:ARG:O	35:FC:108:LYS:HB2	2.18	0.44
1:CA:1817:G:H2'	1:CA:1818:U:H5'	2.00	0.44
33:BA:1001:C:H2'	33:BA:1002:G:H8	1.82	0.44
20:GT:3:ARG:HH21	20:GT:7:LEU:HD21	1.83	0.44
38:BF:29:ILE:HG21	38:BF:36:ILE:HG23	1.99	0.44
22:AV:62:THR:HA	22:AV:71:LYS:HA	1.99	0.44
33:FA:968:A:H4'	33:FA:969:A:OP2	2.18	0.44
1:CA:2582:G:C2	1:CA:2583:G:C8	3.05	0.44
15:EO:3:LYS:HG3	15:EO:4:LYS:H	1.83	0.44
9:AI:96:LYS:HG3	9:AI:136:GLY:HA3	2.00	0.44
44:HL:40:THR:HG22	44:HL:41:THR:N	2.32	0.44
11:GK:70:ARG:O	11:GK:71:ARG:HB2	2.18	0.44
54:HV:110:VAL:HG11	54:HV:278:MET:SD	2.58	0.44
1:EA:2297:A:C2	1:EA:2298:A:C8	3.06	0.44
1:EA:708:G:N2	1:EA:724:U:H1'	2.33	0.44
28:C1:9:LYS:N	28:C1:9:LYS:HD2	2.32	0.44
41:BI:103:PHE:CD1	41:BI:103:PHE:N	2.85	0.44
7:GG:165:ASP:OD1	7:GG:165:ASP:N	2.46	0.44
31:C4:19:ARG:O	31:C4:22:VAL:HG12	2.18	0.44
3:EC:20:ASN:OD1	3:EC:22:GLU:HG2	2.16	0.44
32:E5:88:HIS:CB	32:E5:89:PRO:CD	2.96	0.44
1:EA:476:G:H4'	1:EA:502:A:N1	2.33	0.44
53:FU:34:ARG:CG	53:FU:35:ARG:H	2.30	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:EJ:44:TYR:O	10:EJ:45:THR:HB	2.18	0.44
1:EA:1141:U:H6	10:EJ:65:THR:HG21	1.83	0.44
39:HG:130:ASN:HB2	39:HG:135:VAL:CG2	2.48	0.44
1:AA:2886:A:C6	27:A0:39:ARG:CZ	3.01	0.44
54:BV:219:HIS:C	54:BV:221:ASN:N	2.70	0.44
17:CQ:61:ILE:HG23	17:CQ:75:TYR:CE2	2.53	0.44
1:AA:760:G:H2'	1:AA:761:A:O4'	2.18	0.44
33:DA:426:U:H2'	33:DA:427:U:C6	2.53	0.44
1:GA:620:G:H4'	1:GA:621:A:O5'	2.18	0.44
54:DV:94:ASP:O	54:DV:461:MET:HB2	2.18	0.44
33:BA:681:A:H2'	33:BA:682:G:C8	2.52	0.44
43:BK:93:ARG:NH2	53:BU:20:LYS:CB	2.81	0.44
10:CJ:44:TYR:O	10:CJ:45:THR:HG22	2.18	0.44
1:AA:974:G:O2'	1:AA:989:G:N2	2.49	0.44
23:GW:50:VAL:HG12	23:GW:51:GLY:N	2.33	0.44
33:FA:972:C:OP1	42:FJ:59:LYS:NZ	2.47	0.44
1:GA:1079:C:C3'	1:GA:1080:A:H5''	2.48	0.44
4:AD:33:ARG:NH2	4:AD:74:GLU:O	2.51	0.44
54:HV:19:ILE:HD12	54:HV:92:HIS:HA	1.99	0.44
1:AA:1327:A:C2'	1:AA:1328:A:H5'	2.48	0.44
34:BB:116:LEU:HB3	34:BB:140:LEU:HD11	2.00	0.44
37:HE:114:VAL:CG1	37:HE:137:VAL:HG23	2.48	0.44
3:EC:80:LEU:CD1	3:EC:109:LEU:HG	2.48	0.44
34:DB:56:LEU:HD21	34:DB:216:VAL:HG11	2.00	0.44
9:GI:79:LEU:HA	9:GI:85:ILE:HD13	1.99	0.44
14:EN:69:ARG:O	14:EN:71:ARG:N	2.47	0.44
7:EG:84:LYS:CG	7:EG:85:LYS:N	2.80	0.44
1:CA:1248:G:OP2	5:CE:44:ARG:NH2	2.50	0.44
6:AF:61:GLY:HA3	6:AF:94:ARG:CZ	2.48	0.44
1:EA:518:G:C4	1:EA:519:U:C5	3.06	0.44
17:GQ:86:SER:HB3	18:GR:51:VAL:HG12	1.98	0.44
9:CI:42:ASN:HA	9:CI:45:THR:HB	2.00	0.44
33:BA:659:U:C2	33:BA:747:A:N1	2.86	0.44
15:GO:35:ILE:HB	15:GO:102:ARG:HH11	1.82	0.44
41:DI:78:ALA:O	41:DI:82:GLY:N	2.51	0.44
16:EP:105:LYS:O	16:EP:108:ARG:HD3	2.18	0.44
33:HA:114:U:O2'	33:HA:115:G:H5'	2.17	0.44
45:HM:114:LYS:CB	45:HM:115:PRO:CD	2.96	0.44
11:AK:118:LEU:N	11:AK:118:LEU:HD12	2.32	0.44
1:AA:2819:G:H2'	1:AA:2821:A:N7	2.33	0.44
1:AA:2821:A:OP2	14:AN:3:HIS:NE2	2.51	0.44
34:DB:209:VAL:O	34:DB:213:LEU:HB2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:GE:46:GLN:HG3	5:GE:87:ALA:CB	2.48	0.44
33:BA:72:A:H2'	33:BA:73:C:C5'	2.48	0.44
33:DA:1087:G:C2	33:DA:1088:G:N7	2.86	0.44
1:CA:479:A:N3	1:CA:481:G:H5''	2.33	0.44
34:BB:103:TRP:CZ3	34:BB:107:ARG:HD3	2.53	0.44
2:EB:116:G:H4'	15:EO:54:VAL:CG1	2.48	0.44
11:CK:63:VAL:HG12	11:CK:64:ARG:HG3	2.00	0.44
1:EA:419:U:H2'	1:EA:420:C:C6	2.53	0.44
9:EI:27:LEU:CD1	9:EI:34:ILE:HD12	2.48	0.44
42:DJ:6:ILE:HB	42:DJ:76:ILE:HB	1.98	0.44
1:AA:1387:A:H5'	1:AA:1469:A:H1'	2.00	0.44
33:DA:1285:A:H4'	33:DA:1286:U:C5	2.53	0.44
10:CJ:64:VAL:O	10:CJ:65:THR:HG22	2.18	0.44
28:A1:8:ILE:HD12	28:A1:9:LYS:H	1.83	0.44
37:BE:115:LEU:HG	37:BE:120:VAL:HG21	1.99	0.44
19:CS:63:GLY:O	19:CS:64:ALA:CB	2.65	0.44
1:CA:784:G:C2'	1:CA:785:G:OP2	2.66	0.44
19:AS:17:VAL:HG11	19:AS:103:ILE:HG12	1.99	0.44
33:DA:448:A:C4	33:DA:487:A:C2	3.05	0.44
1:EA:933:A:H5'	1:EA:934:U:OP2	2.17	0.44
49:DQ:75:LEU:HD11	49:DQ:77:ARG:O	2.17	0.44
33:BA:109:A:H2'	33:BA:326:G:N2	2.33	0.44
26:EZ:40:THR:HG23	26:EZ:43:ILE:H	1.83	0.44
44:FL:90:LEU:HB3	44:FL:93:VAL:CG2	2.48	0.44
33:FA:901:A:N7	33:FA:902:G:H1'	2.33	0.44
32:A5:51:TYR:HE1	32:A5:52:MET:SD	2.39	0.44
6:CF:18:GLU:HB3	6:CF:19:PHE:CD1	2.53	0.44
1:EA:2835:A:C2	1:EA:2879:A:C5	3.06	0.44
1:GA:1996:C:H4'	1:GA:1997:C:OP1	2.18	0.44
10:GJ:17:VAL:HG23	10:GJ:137:PRO:HB2	1.99	0.44
24:GX:34:SER:O	24:GX:34:SER:OG	2.31	0.44
1:CA:352:A:H3'	1:CA:353:C:H6	1.83	0.44
54:DV:218:TRP:N	54:DV:218:TRP:CD1	2.85	0.44
54:FV:317:PHE:CE2	54:FV:349:VAL:HG11	2.53	0.44
33:DA:57:G:C6	33:DA:58:C:C4	3.06	0.44
1:EA:102:U:C4	25:EY:2:LYS:HB2	2.53	0.44
33:DA:399:G:H2'	33:DA:400:C:C6	2.52	0.44
33:DA:1331:G:HO2'	33:DA:1332:A:P	2.41	0.44
1:AA:1064:C:C2'	1:AA:1065:U:H5'	2.48	0.44
48:BP:19:VAL:HG12	48:BP:37:GLY:C	2.38	0.44
35:HC:129:MET:SD	35:HC:132:ARG:HD2	2.58	0.44
46:BN:67:THR:CG2	46:BN:83:LYS:HE3	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:EV:25:LYS:O	22:EV:26:PHE:HB3	2.18	0.44
1:CA:416:U:H2'	1:CA:417:C:O4'	2.18	0.44
36:BD:4:TYR:CZ	36:BD:6:GLY:HA3	2.53	0.44
36:BD:4:TYR:O	36:BD:5:LEU:HB2	2.17	0.44
33:FA:1294:G:C6	33:FA:1295:U:C4	3.06	0.44
1:EA:1579:A:H2'	1:EA:1580:A:C8	2.53	0.44
33:FA:293:G:C6	33:FA:294:U:C4	3.06	0.44
42:FJ:57:VAL:CG1	42:FJ:58:ASN:N	2.80	0.44
33:FA:1110:A:N6	33:FA:1111:A:C6	2.86	0.44
1:GA:1565:C:C5	1:GA:1567:G:C6	3.06	0.44
1:EA:687:C:H5"	29:E2:2:LYS:HE2	2.00	0.44
33:HA:909:A:H2'	33:HA:910:C:O4'	2.18	0.44
33:DA:1423:G:C6	33:DA:1424:U:C4	3.06	0.44
11:EK:120:PRO:HB2	16:EP:65:ASN:ND2	2.32	0.44
18:AR:64:VAL:O	18:AR:65:ALA:HB3	2.17	0.44
33:BA:176:C:H4'	52:BT:24:ARG:NH2	2.33	0.44
1:GA:932:U:O2'	1:GA:934:U:O4	2.35	0.44
1:GA:383:C:N3	1:GA:391:A:N6	2.66	0.44
34:FB:67:LEU:HD12	34:FB:157:PRO:HG2	2.00	0.44
34:FB:71:THR:O	34:FB:72:LYS:HG2	2.17	0.44
36:BD:102:VAL:HG21	36:BD:123:ILE:CD1	2.47	0.44
1:GA:675:A:N3	1:GA:2443:C:O2'	2.46	0.44
17:AQ:97:ILE:HD13	17:AQ:98:ALA:N	2.33	0.44
22:GV:6:ALA:HB1	22:GV:40:ILE:CG2	2.48	0.44
54:HV:666:TYR:CE2	54:HV:670:LEU:HD22	2.52	0.44
1:AA:681:G:C2	1:AA:797:G:C2	3.06	0.44
1:CA:1030:C:OP2	13:CM:127:LYS:NZ	2.35	0.44
22:CV:11:GLU:HB3	22:CV:16:ALA:HB2	1.99	0.44
1:AA:1401:G:C5	1:AA:1402:U:C5	3.06	0.44
40:DH:103:VAL:HG12	40:DH:126:ILE:HD13	2.00	0.44
45:FM:79:ARG:NH1	51:FS:65:GLU:HG2	2.32	0.44
33:DA:1054:C:O2	33:DA:1196:A:C5	2.71	0.44
1:EA:2766:A:H2'	1:EA:2766:A:N3	2.33	0.44
54:BV:514:GLN:HE21	54:BV:514:GLN:CA	2.30	0.44
1:AA:669:G:N3	1:AA:669:G:C2'	2.80	0.44
2:AB:119:A:N3	2:AB:119:A:H2'	2.33	0.44
1:AA:1705:A:C5	1:AA:1706:C:C4	3.05	0.44
54:BV:416:ILE:HG12	54:BV:667:ALA:HB3	1.98	0.44
9:EI:100:ILE:HG22	9:EI:101:SER:N	2.33	0.44
52:DT:51:PHE:CZ	52:DT:76:LYS:HB2	2.52	0.44
2:EB:98:G:H1	22:EV:14:LYS:HB2	1.81	0.44
10:EJ:44:TYR:O	10:EJ:45:THR:CB	2.66	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:EJ:44:TYR:CD2	17:EQ:63:ARG:HG2	2.52	0.44
17:CQ:91:ARG:CB	17:CQ:94:LEU:HB2	2.45	0.44
33:HA:1116:U:C4'	41:HI:110:GLN:HE22	2.30	0.44
33:HA:1026:G:H2'	33:HA:1027:C:H5'	1.98	0.44
1:CA:2136:G:H2'	1:CA:2136:G:N3	2.33	0.44
4:ED:91:THR:O	4:ED:92:VAL:C	2.55	0.44
33:HA:460:A:H2'	33:HA:460:A:N3	2.33	0.44
10:CJ:3:THR:CB	10:CJ:44:TYR:OH	2.66	0.44
37:FE:147:MET:O	37:FE:147:MET:HG3	2.17	0.44
23:AW:18:LYS:HA	23:AW:36:ILE:HB	2.00	0.44
33:DA:1021:A:C2'	33:DA:1022:A:H5'	2.48	0.44
6:AF:2:LYS:HD3	6:AF:3:LEU:HD23	1.99	0.44
9:GI:32:VAL:HG12	9:GI:33:ASN:H	1.83	0.44
1:AA:1022:G:N2	1:AA:1142:A:C2	2.86	0.44
1:AA:1913:A:N3	55:BW:4:SER:CA	2.81	0.44
44:FL:116:LYS:O	44:FL:117:TYR:HB2	2.17	0.44
16:EP:50:ARG:CD	16:EP:56:SER:HB3	2.48	0.44
4:ED:107:VAL:HA	4:ED:204:LYS:O	2.18	0.44
9:GI:78:LEU:HD13	9:GI:105:LEU:HD22	1.99	0.44
1:CA:1733:G:C8	1:CA:1734:G:C8	3.06	0.44
6:GF:174:PHE:CD2	6:GF:175:PRO:HD2	2.53	0.44
6:GF:110:ILE:HG21	6:GF:114:ARG:NH2	2.33	0.44
9:EI:132:ALA:HA	9:EI:135:MET:CE	2.48	0.44
1:AA:2849:U:C4	1:AA:2867:G:N3	2.86	0.44
39:HG:51:ALA:HB1	39:HG:57:SER:O	2.17	0.44
40:HH:116:ALA:HA	40:HH:121:LEU:HD11	2.00	0.44
1:EA:1730:C:OP1	1:EA:1730:C:H4'	2.18	0.44
34:HB:86:CYS:C	34:HB:88:GLN:H	2.21	0.44
45:HM:13:LYS:HE3	45:HM:17:ILE:HG22	1.99	0.44
36:BD:136:GLN:NE2	36:BD:136:GLN:HA	2.32	0.44
18:ER:49:ILE:HG22	18:ER:54:VAL:N	2.33	0.44
33:DA:620:C:H1'	36:DD:132:ILE:HG12	2.00	0.44
1:EA:947:A:O2'	1:EA:984:A:H2	2.01	0.44
33:DA:483:C:O2	48:DP:13:LYS:NZ	2.50	0.44
12:AL:2:ARG:O	12:AL:2:ARG:HG2	2.18	0.44
1:AA:2376:A:H2'	1:AA:2377:A:O4'	2.18	0.44
34:HB:67:LEU:CD2	34:HB:69:VAL:HG13	2.48	0.44
8:EH:8:LYS:O	8:EH:13:GLY:CA	2.66	0.44
42:FJ:10:LEU:CD2	42:FJ:22:THR:HA	2.48	0.44
16:EP:92:ARG:O	16:EP:92:ARG:HG2	2.18	0.44
18:ER:5:PHE:HE1	18:ER:14:VAL:HG21	1.82	0.44
1:GA:2199:A:H3'	1:GA:2200:C:C6	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:FB:101:THR:HB	34:FB:174:GLU:HG3	2.00	0.44
20:GT:67:VAL:HB	20:GT:76:ARG:HG3	1.99	0.44
1:GA:2776:A:C6	1:GA:2778:A:C6	3.06	0.44
1:AA:1683:U:H2'	1:AA:1684:G:C8	2.52	0.44
2:GB:32:U:C1'	2:GB:53:A:H61	2.31	0.44
33:BA:1478:U:H2'	33:BA:1479:C:C6	2.52	0.44
20:GT:69:ARG:O	20:GT:74:ILE:HD12	2.18	0.44
52:HT:67:ILE:HG13	52:HT:71:LYS:HD3	2.00	0.44
6:EF:4:HIS:ND1	6:EF:96:TRP:NE1	2.66	0.44
33:FA:192:A:N3	52:FT:55:GLN:NE2	2.65	0.44
34:DB:150:ILE:O	34:DB:153:MET:N	2.49	0.44
16:CP:96:LEU:HB3	16:CP:99:LEU:HD22	2.00	0.44
14:EN:103:ARG:HB2	14:EN:110:MET:CE	2.48	0.44
20:GT:7:LEU:O	20:GT:10:VAL:HG13	2.18	0.44
32:E5:88:HIS:CB	32:E5:89:PRO:HD3	2.48	0.44
32:E5:88:HIS:HB3	32:E5:89:PRO:HD3	2.00	0.44
54:DV:553:VAL:HG23	54:DV:597:ALA:HB2	2.00	0.44
39:FG:111:ARG:HE	39:FG:123:GLU:HG2	1.83	0.44
16:AP:42:PHE:CE1	16:AP:62:LYS:HG3	2.52	0.44
33:DA:1314:C:C6	51:DS:6:LYS:HD3	2.53	0.44
33:HA:1530:G:H2'	33:HA:1531:A:C8	2.53	0.44
1:CA:152:A:C2	1:CA:175:G:C2	3.06	0.44
45:DM:3:ARG:HA	45:DM:8:ASN:O	2.18	0.44
21:CU:82:VAL:HG12	21:CU:83:GLY:N	2.33	0.44
34:HB:13:VAL:H	34:HB:207:ARG:CZ	2.31	0.44
4:ED:111:GLY:HA3	4:ED:194:PRO:HG2	1.99	0.44
42:DJ:9:ARG:HB2	42:DJ:99:GLN:HB2	1.99	0.44
40:DH:10:MET:HE1	40:DH:33:LYS:HA	2.00	0.44
10:EJ:58:ASN:N	10:EJ:127:GLY:O	2.44	0.44
1:GA:2868:A:C2	1:GA:2869:G:C4	3.06	0.44
9:CI:23:VAL:HG23	9:CI:24:GLY:H	1.83	0.44
1:EA:86:G:C2	1:EA:87:U:C5	3.06	0.44
33:BA:1366:C:O2'	42:BJ:62:ARG:NH2	2.51	0.44
21:AU:8:ASP:H	21:AU:23:LYS:HG3	1.83	0.44
1:GA:674:G:H1'	5:GE:69:ARG:CD	2.48	0.44
11:EK:92:GLU:O	11:EK:93:GLN:HB2	2.18	0.44
42:BJ:92:LEU:O	42:BJ:93:ALA:HB3	2.18	0.44
3:EC:75:ALA:HB2	3:EC:95:TYR:CD2	2.53	0.44
19:ES:13:SER:O	19:ES:14:ALA:CB	2.66	0.44
33:BA:671:G:C6	33:BA:672:U:C4	3.06	0.44
1:AA:953:G:N2	1:AA:964:C:O2	2.46	0.44
11:EK:13:ASN:O	11:EK:15:GLY:N	2.37	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2444:G:C6	1:AA:2445:G:N7	2.86	0.44
44:BL:97:THR:O	44:BL:97:THR:HG22	2.18	0.44
1:EA:2869:G:C6	1:EA:2870:C:C4	3.05	0.44
48:HP:20:VAL:HG21	48:HP:32:PHE:CG	2.53	0.44
17:GQ:91:ARG:NH2	17:GQ:93:ILE:HG21	2.32	0.43
39:HG:113:ASP:O	39:HG:119:ARG:NH2	2.50	0.43
1:CA:569:U:C4	1:CA:570:G:C6	3.06	0.43
1:CA:760:G:H2'	1:CA:761:A:O4'	2.18	0.43
41:DI:57:MET:HA	41:DI:60:LYS:CG	2.48	0.43
32:A5:67:THR:C	32:A5:69:PHE:N	2.71	0.43
1:GA:84:A:P	21:GU:5:ARG:NH2	2.91	0.43
23:CW:23:LYS:HE2	23:CW:24:ARG:CB	2.48	0.43
10:CJ:44:TYR:O	10:CJ:45:THR:CB	2.66	0.43
37:FE:99:ALA:O	37:FE:122:ASN:ND2	2.51	0.43
36:HD:29:ASP:OD1	36:HD:30:THR:N	2.42	0.43
9:GI:29:GLN:NE2	54:HV:625:GLU:OE1	2.37	0.43
36:HD:107:PHE:CD2	36:HD:145:ILE:HG13	2.53	0.43
6:AF:12:VAL:HG21	6:AF:24:VAL:HG23	1.99	0.43
1:AA:2303:G:C5	1:AA:2304:G:N7	2.86	0.43
33:BA:1317:C:OP1	46:BN:21:PHE:CE2	2.71	0.43
43:BK:21:ALA:HA	43:BK:34:ILE:HG12	2.00	0.43
4:AD:118:PHE:CD1	4:AD:119:ALA:N	2.82	0.43
1:EA:764:A:N1	1:EA:1789:A:O2'	2.47	0.43
1:EA:1789:A:P	3:EC:220:ARG:HH11	2.40	0.43
1:AA:2676:C:P	11:AK:31:ARG:HH12	2.41	0.43
1:GA:897:C:H2'	1:GA:898:C:C6	2.53	0.43
45:HM:57:ARG:HG3	45:HM:60:VAL:CG1	2.48	0.43
48:HP:43:ALA:O	48:HP:44:SER:C	2.56	0.43
1:EA:1665:A:H5''	11:EK:66:LYS:HG3	2.00	0.43
21:EU:5:ARG:HH11	21:EU:93:ARG:HG3	1.83	0.43
49:HQ:14:SER:HB3	49:HQ:22:VAL:HG22	1.99	0.43
6:AF:94:ARG:HA	6:AF:97:GLU:HB2	1.99	0.43
1:EA:26:G:C6	1:EA:27:G:C6	3.05	0.43
40:HH:3:MET:CE	40:HH:6:PRO:HA	2.48	0.43
34:HB:79:VAL:O	34:HB:83:ALA:HB3	2.18	0.43
34:FB:53:LEU:CD2	34:FB:216:VAL:HG12	2.48	0.43
1:GA:2108:A:H62	1:GA:2180:U:H2'	1.83	0.43
54:BV:217:GLU:O	54:BV:220:GLN:CA	2.65	0.43
1:EA:1532:A:C6	1:EA:1533:C:C4	3.06	0.43
33:BA:676:A:C4	33:BA:677:U:C5	3.06	0.43
1:GA:1607:C:N4	1:GA:1622:G:OP2	2.39	0.43
1:CA:1028:A:H61	1:CA:1125:G:H2'	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:502:A:C2	33:FA:503:C:C2	3.06	0.43
37:BE:156:LYS:O	40:BH:64:LYS:NZ	2.42	0.43
1:CA:2037:A:H2'	1:CA:2038:G:C8	2.53	0.43
1:AA:809:G:C6	1:AA:810:U:C4	3.06	0.43
22:EV:6:ALA:HB1	22:EV:40:ILE:CG2	2.48	0.43
33:FA:70:U:O2'	33:FA:71:A:H8	2.01	0.43
14:CN:52:ILE:HA	14:CN:79:LEU:HD23	2.00	0.43
36:HD:60:LYS:HD2	36:HD:195:ILE:HG22	2.00	0.43
33:DA:79:G:H3'	33:DA:80:A:H8	1.83	0.43
18:CR:9:GLY:C	18:CR:10:LYS:HG3	2.39	0.43
38:DF:91:ARG:HD2	50:DR:57:ARG:HH21	1.83	0.43
50:DR:57:ARG:HE	50:DR:61:ARG:HH12	1.66	0.43
2:GB:33:G:O2'	2:GB:34:A:H5'	2.18	0.43
38:HF:26:THR:HG22	38:HF:62:MET:HE3	2.00	0.43
1:AA:223:A:C6	1:AA:422:A:C5	3.06	0.43
1:GA:2105:U:C4	1:GA:2106:U:C5	3.06	0.43
33:BA:202:G:HO2'	33:BA:468:A:H8	1.62	0.43
5:EE:147:LEU:O	5:EE:168:ASP:O	2.36	0.43
11:CK:103:VAL:O	11:CK:122:VAL:HB	2.18	0.43
6:CF:43:ILE:CG2	6:CF:78:ILE:HG22	2.48	0.43
1:GA:2070:A:C2	1:GA:2071:A:C4	3.06	0.43
22:GV:80:HIS:HD2	22:GV:83:LYS:N	2.16	0.43
8:CH:28:ASN:C	8:CH:32:PRO:HG2	2.38	0.43
1:CA:1164:C:H2'	1:CA:1165:A:H8	1.82	0.43
5:CE:160:ALA:O	5:CE:161:ALA:HB3	2.18	0.43
1:GA:375:G:H1	1:GA:399:U:H3	1.66	0.43
45:HM:49:SER:HB2	45:HM:52:GLN:HB2	2.00	0.43
1:GA:2051:A:N6	1:GA:2614:A:C8	2.86	0.43
1:AA:721:A:H2'	1:AA:722:A:C8	2.53	0.43
9:CI:23:VAL:HG23	9:CI:27:LEU:HD23	2.00	0.43
3:EC:75:ALA:HB2	3:EC:95:TYR:HA	2.00	0.43
33:BA:426:U:H2'	33:BA:427:U:C6	2.52	0.43
33:BA:1244:G:C6	33:BA:1245:C:C4	3.06	0.43
4:CD:9:VAL:HG13	4:CD:26:VAL:HB	2.00	0.43
10:EJ:101:ILE:O	10:EJ:105:VAL:HG13	2.18	0.43
1:AA:358:U:H2'	1:AA:359:G:C8	2.53	0.43
8:GH:2:GLN:C	8:GH:3:VAL:HG13	2.38	0.43
34:HB:148:GLY:C	34:HB:150:ILE:H	2.22	0.43
11:EK:5:GLN:O	11:EK:6:THR:HB	2.18	0.43
1:EA:483:A:C8	21:EU:44:HIS:HD2	2.35	0.43
33:FA:448:A:N6	33:FA:449:G:C2	2.86	0.43
46:DN:53:ARG:NH2	51:DS:37:ARG:HH21	2.16	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:827:U:C4	33:HA:870:U:C2	3.06	0.43
1:GA:570:G:C4	1:GA:2030:A:N7	2.86	0.43
2:CB:66:A:H61	2:CB:107:G:H2'	1.83	0.43
1:GA:2409:G:H2'	1:GA:2410:G:O4'	2.18	0.43
33:DA:340:U:H2'	33:DA:341:C:C6	2.53	0.43
33:HA:661:G:C2	33:HA:745:G:C2	3.06	0.43
4:GD:121:THR:O	4:GD:122:VAL:HB	2.17	0.43
6:EF:55:ASP:O	6:EF:58:ALA:N	2.51	0.43
9:CI:5:GLN:NE2	9:CI:61:TYR:CD1	2.86	0.43
1:AA:1957:C:H2'	1:AA:1958:C:C6	2.53	0.43
1:AA:2431:U:O2	1:AA:2433:A:C8	2.71	0.43
30:A3:14:LYS:HB3	30:A3:22:LYS:HE2	2.00	0.43
1:CA:1572:A:OP2	59:CA:3619:HOH:O	2.21	0.43
20:GT:32:LEU:H	20:GT:83:ALA:HB3	1.83	0.43
1:GA:1885:A:H2'	1:GA:1886:U:O4'	2.18	0.43
40:BH:13:ARG:NH1	40:BH:27:MET:HB2	2.31	0.43
33:DA:658:C:O4'	47:DO:22:THR:OG1	2.36	0.43
1:AA:2690:U:N3	14:AN:6:SER:O	2.47	0.43
1:AA:1511:G:H2'	1:AA:1512:C:C6	2.53	0.43
19:ES:40:ASN:OD1	19:ES:40:ASN:N	2.51	0.43
54:HV:29:ARG:NH1	54:HV:29:ARG:HA	2.33	0.43
1:AA:2554:U:H2'	1:AA:2555:U:C6	2.53	0.43
33:FA:1272:G:C6	33:FA:1273:C:C4	3.06	0.43
19:GS:13:SER:O	19:GS:14:ALA:HB2	2.17	0.43
35:HC:175:LEU:HD11	35:HC:201:TRP:CD1	2.53	0.43
9:CI:100:ILE:HG22	9:CI:101:SER:N	2.32	0.43
17:GQ:94:LEU:HD22	18:GR:11:GLN:HB2	1.99	0.43
39:HG:122:ASN:O	39:HG:126:ASP:HB2	2.18	0.43
1:CA:1354:A:H2'	1:CA:1355:G:O4'	2.18	0.43
53:HU:34:ARG:CG	53:HU:35:ARG:H	2.31	0.43
16:AP:33:GLU:HB2	16:AP:38:ARG:HH22	1.82	0.43
43:HK:75:LYS:C	43:HK:78:GLY:H	2.21	0.43
16:AP:50:ARG:NE	16:AP:57:ALA:H	2.16	0.43
1:CA:2884:U:C2'	1:CA:2884:U:O2	2.66	0.43
16:CP:50:ARG:HD2	16:CP:51:ASN:N	2.32	0.43
1:CA:2139:U:C2'	1:CA:2152:G:O6	2.65	0.43
33:BA:1095:U:OP2	59:BA:1862:HOH:O	2.21	0.43
3:AC:68:ARG:HD3	3:AC:103:ILE:CD1	2.48	0.43
10:CJ:4:PHE:C	10:CJ:44:TYR:CE1	2.91	0.43
53:DU:40:LYS:N	53:DU:41:PRO:HD2	2.32	0.43
33:DA:1005:A:H2'	33:DA:1006:G:O4'	2.18	0.43
1:CA:947:A:O2'	1:CA:984:A:H2	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:118:PHE:HZ	14:AN:1:MET:HB3	1.84	0.43
1:AA:1568:G:P	3:AC:62:ARG:NH1	2.91	0.43
24:CX:70:LEU:HB3	24:CX:75:GLU:HB2	2.00	0.43
5:GE:172:ALA:O	5:GE:175:ILE:HG22	2.18	0.43
1:EA:27:G:N2	1:EA:512:G:H1'	2.33	0.43
33:HA:746:A:N1	33:HA:747:A:N6	2.66	0.43
6:GF:107:VAL:HB	6:GF:108:PRO:HD3	1.99	0.43
18:CR:49:ILE:HG22	18:CR:54:VAL:HG23	1.99	0.43
4:AD:48:ILE:HG23	4:AD:84:LEU:HD11	2.01	0.43
33:DA:1525:G:P	43:DK:122:ARG:HH22	2.41	0.43
33:HA:842:U:H3'	33:HA:843:U:C5'	2.47	0.43
41:DI:11:ARG:HG3	41:DI:106:ARG:NE	2.33	0.43
15:AO:74:VAL:O	15:AO:77:ALA:HB3	2.18	0.43
16:EP:80:VAL:O	16:EP:81:ASP:HB3	2.18	0.43
39:DG:57:SER:HB3	39:DG:60:GLU:CG	2.48	0.43
1:CA:2307:G:N2	1:CA:2311:A:H2'	2.33	0.43
34:DB:49:PHE:HB2	34:DB:212:TYR:HE2	1.83	0.43
33:HA:373:A:C1'	33:HA:481:G:H1'	2.49	0.43
35:DC:22:TRP:HB3	35:DC:59:ARG:H	1.84	0.43
1:EA:973:A:H5''	18:ER:81:LYS:HG3	1.98	0.43
43:HK:24:HIS:O	43:HK:31:ILE:HG23	2.18	0.43
1:CA:2313:C:H2'	1:CA:2314:A:H8	1.83	0.43
2:CB:78:A:H2'	2:CB:79:G:O4'	2.18	0.43
1:EA:45:G:H5''	1:EA:46:G:H5'	2.00	0.43
33:FA:224:U:N3	33:FA:225:C:C5	2.86	0.43
33:DA:444:G:C4	33:DA:445:G:C8	3.06	0.43
6:CF:134:GLN:HG2	6:CF:135:ILE:N	2.34	0.43
33:BA:652:U:O4	33:BA:752:G:O2'	2.30	0.43
1:EA:613:A:N7	1:EA:616:A:N1	2.66	0.43
44:FL:90:LEU:HB3	44:FL:93:VAL:HG21	2.00	0.43
1:CA:2485:G:H5''	13:CM:45:GLN:HE21	1.83	0.43
25:EY:15:ASN:O	25:EY:19:LEU:N	2.50	0.43
41:DI:120:LYS:O	41:DI:121:ALA:CB	2.66	0.43
33:FA:407:U:C2	33:FA:408:A:C8	3.06	0.43
6:AF:107:VAL:CG1	6:AF:113:PHE:CZ	3.01	0.43
1:CA:1062:G:C2	1:CA:1063:G:C4	3.06	0.43
1:AA:45:G:C5'	1:AA:46:G:H5'	2.48	0.43
11:GK:10:VAL:HG21	11:GK:16:ALA:HB3	2.00	0.43
28:E1:47:ILE:H	28:E1:47:ILE:HD12	1.82	0.43
1:CA:2521:C:H42	1:CA:2544:G:H1	1.65	0.43
9:CI:20:SER:N	9:CI:21:PRO:CD	2.81	0.43
6:EF:142:TYR:CD1	6:EF:142:TYR:C	2.91	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1062:G:C6	1:AA:1077:A:N1	2.86	0.43
33:BA:671:G:C2	33:BA:672:U:C2	3.06	0.43
34:DB:107:ARG:HG2	34:DB:111:LYS:HE3	2.00	0.43
33:DA:441:A:H5''	33:DA:442:G:OP2	2.18	0.43
1:GA:102:U:C4	25:GY:2:LYS:HB2	2.53	0.43
1:AA:356:G:C6	1:AA:357:C:C4	3.05	0.43
48:HP:48:GLU:OE1	48:HP:49:GLY:N	2.47	0.43
1:GA:1447:C:H1'	1:GA:1545:A:H1'	2.00	0.43
1:EA:2415:G:H4'	12:EL:66:PHE:HB2	2.00	0.43
24:CX:40:GLU:O	24:CX:43:LYS:HD2	2.18	0.43
1:EA:1476:U:H4'	1:EA:1732:C:H2'	2.00	0.43
33:FA:929:G:C6	33:FA:930:C:C4	3.06	0.43
15:CO:11:ALA:HB2	15:CO:96:GLY:N	2.33	0.43
43:DK:27:PHE:CE2	43:DK:89:PRO:HG2	2.53	0.43
7:AG:126:THR:HG22	7:AG:127:GLN:N	2.33	0.43
18:ER:90:ARG:O	18:ER:91:GLN:HB3	2.18	0.43
1:EA:1006:C:C2	1:EA:1138:G:N2	2.86	0.43
1:GA:2310:C:N3	6:GF:75:GLY:HA3	2.33	0.43
33:BA:570:G:H1'	33:BA:820:U:C4	2.53	0.43
50:FR:34:THR:OG1	50:FR:35:GLU:N	2.52	0.43
10:CJ:26:GLY:HA2	10:CJ:29:ALA:HB3	1.99	0.43
1:CA:588:U:H1'	5:CE:85:PHE:CD1	2.53	0.43
54:HV:12:ASN:ND2	54:HV:107:ASP:OD2	2.47	0.43
22:EV:64:VAL:HG12	22:EV:67:GLY:HA2	1.99	0.43
4:AD:78:GLY:C	4:AD:79:LEU:HD12	2.39	0.43
11:AK:5:GLN:O	11:AK:6:THR:HB	2.18	0.43
6:GF:10:GLU:OE1	6:GF:14:LYS:NZ	2.50	0.43
19:GS:28:LYS:HG2	19:GS:70:LYS:HG3	2.00	0.43
41:HI:30:ILE:CD1	41:HI:79:ILE:HD11	2.48	0.43
1:GA:613:A:O2'	1:GA:614:A:OP1	2.31	0.43
6:CF:148:VAL:HG23	6:CF:149:ARG:N	2.33	0.43
2:EB:51:G:H5''	15:EO:64:TYR:CD2	2.54	0.43
13:GM:47:GLU:OE1	13:GM:51:ARG:NH2	2.51	0.43
1:EA:1446:C:H2'	1:EA:1447:C:C6	2.53	0.43
33:DA:463:U:H5'	33:DA:464:U:OP2	2.18	0.43
1:CA:1937:A:N7	1:CA:1939:U:H2'	2.33	0.43
42:BJ:6:ILE:HD11	42:BJ:79:PRO:HB3	1.99	0.43
16:GP:25:VAL:HG12	16:GP:46:VAL:HG23	2.00	0.43
26:GZ:11:SER:OG	26:GZ:12:ALA:N	2.52	0.43
44:DL:27:CYS:HB2	44:DL:28:PRO:CD	2.48	0.43
13:CM:136:MET:HE2	13:CM:136:MET:HB3	1.88	0.43
1:AA:1522:A:O4'	1:AA:1524:G:C8	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:1098:C:C4	33:FA:1099:G:N7	2.86	0.43
33:HA:1240:U:H3'	33:HA:1241:G:C5'	2.48	0.43
17:EQ:93:ILE:O	17:EQ:96:ASP:N	2.51	0.43
41:FI:43:THR:O	41:FI:44:ALA:HB3	2.19	0.43
17:AQ:63:ARG:HH22	17:AQ:96:ASP:N	2.16	0.43
1:EA:2365:G:H4'	23:EW:59:PHE:CZ	2.53	0.43
32:A5:64:VAL:O	32:A5:68:PRO:HD2	2.18	0.43
41:DI:7:TYR:CD1	41:DI:20:PHE:HE1	2.36	0.43
1:EA:163:C:O2'	1:EA:164:C:C5'	2.66	0.43
33:BA:707:U:H5''	43:BK:22:HIS:CE1	2.52	0.43
1:AA:962:G:H21	1:AA:2250:G:H1	1.67	0.43
10:CJ:45:THR:O	10:CJ:45:THR:HG23	2.17	0.43
1:GA:1783:A:H5'	1:GA:2608:G:H4'	2.00	0.43
34:HB:14:HIS:O	34:HB:14:HIS:CG	2.71	0.43
1:EA:1077:A:C4'	9:EI:93:ASN:HB2	2.44	0.43
24:GX:30:PRO:HB2	24:GX:32:LEU:CD1	2.48	0.43
6:AF:10:GLU:O	6:AF:12:VAL:N	2.47	0.43
41:HI:56:ASP:N	41:HI:57:MET:SD	2.91	0.43
54:FV:560:GLN:NE2	54:FV:598:SER:HA	2.33	0.43
33:FA:607:A:C2	33:FA:608:A:C4	3.06	0.43
1:GA:2352:A:C6	23:GW:30:VAL:HG11	2.53	0.43
33:HA:922:G:C6	33:HA:923:A:C6	3.06	0.43
43:BK:113:VAL:HG12	50:BR:73:ARG:NH1	2.33	0.43
33:BA:811:C:N4	33:BA:812:G:C6	2.86	0.43
1:EA:1779:U:H5	1:EA:1784:A:N7	2.15	0.43
1:GA:1392:A:N6	1:GA:1393:A:N6	2.66	0.43
33:DA:1191:A:OP1	35:DC:4:LYS:NZ	2.41	0.43
4:CD:106:LYS:HB3	4:CD:206:ALA:H	1.83	0.43
4:AD:120:GLY:HA2	4:AD:162:ALA:CB	2.47	0.43
2:GB:116:G:H4'	15:GO:54:VAL:HG12	2.00	0.43
1:GA:2766:A:N3	1:GA:2766:A:H2'	2.33	0.43
5:EE:77:ILE:HG13	5:EE:77:ILE:O	2.16	0.43
54:BV:231:GLU:O	54:BV:235:GLU:N	2.46	0.43
7:AG:84:LYS:CG	7:AG:85:LYS:H	2.30	0.43
1:AA:2421:G:OP2	28:A1:7:LYS:NZ	2.50	0.43
28:A1:9:LYS:N	28:A1:9:LYS:HD2	2.34	0.43
34:DB:116:LEU:O	34:DB:119:GLN:HG2	2.18	0.43
33:BA:373:A:O2'	33:BA:374:A:H5'	2.18	0.43
42:FJ:40:ILE:O	42:FJ:72:ARG:HA	2.18	0.43
3:GC:166:ARG:HB3	3:GC:171:VAL:HG12	2.00	0.43
37:BE:86:LYS:HG3	37:BE:94:VAL:O	2.17	0.43
1:CA:2556:C:H2'	1:CA:2557:G:O4'	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:EK:19:VAL:HG22	11:EK:41:ILE:HG13	2.00	0.43
1:AA:834:G:C5	1:AA:835:C:C5	3.07	0.43
33:BA:763:G:H2'	33:BA:764:C:H6	1.83	0.43
4:CD:25:THR:HG21	4:CD:193:VAL:HG22	2.00	0.43
12:EL:56:PRO:O	12:EL:60:ARG:HG3	2.17	0.43
38:DF:68:GLN:HA	38:DF:71:ILE:HG22	1.99	0.43
9:CI:19:PRO:HD3	9:CI:41:PHE:CE2	2.53	0.43
1:GA:1791:A:H5''	3:GC:204:LEU:HD23	2.01	0.43
5:EE:23:PHE:HB2	5:EE:111:GLU:HG2	2.00	0.43
1:EA:102:U:C2	25:EY:2:LYS:HD3	2.54	0.43
33:FA:327:A:O3'	33:FA:328:C:H4'	2.17	0.43
40:BH:6:PRO:O	40:BH:9:ASP:N	2.51	0.43
7:AG:23:ILE:HD12	7:AG:23:ILE:H	1.84	0.43
54:BV:200:VAL:HG23	54:BV:201:THR:N	2.33	0.43
1:GA:570:G:H2'	1:GA:2030:A:N7	2.33	0.43
1:GA:2563:U:H1'	1:GA:2566:A:N6	2.33	0.43
33:BA:429:U:O3'	36:BD:22:LYS:NZ	2.49	0.43
40:FH:25:VAL:HG23	40:FH:63:LEU:HD21	2.00	0.43
1:AA:1424:G:H2'	1:AA:1425:G:O4'	2.18	0.43
1:EA:2769:U:OP1	10:EJ:95:ARG:NH2	2.51	0.43
33:HA:267:C:OP2	49:HQ:69:LYS:NZ	2.45	0.43
1:EA:1950:G:N2	1:EA:1956:U:O4	2.50	0.43
36:HD:139:PRO:O	36:HD:140:ASN:HB2	2.18	0.43
33:FA:1175:G:H2'	33:FA:1176:A:H8	1.84	0.43
48:DP:22:ALA:HA	48:DP:33:ILE:HG13	2.00	0.43
1:AA:1017:G:C2	1:AA:1146:C:C2	3.07	0.43
2:EB:9:G:HO2'	15:EO:45:SER:HG	1.62	0.43
1:EA:1613:G:C2	1:EA:1619:G:C5	3.07	0.43
33:BA:1391:U:H2'	33:BA:1392:G:C8	2.53	0.43
54:DV:23:LYS:O	54:DV:24:THR:OG1	2.34	0.43
14:AN:95:THR:CG2	14:AN:113:ILE:HG13	2.48	0.43
1:AA:1403:A:C2	1:AA:1404:C:C2	3.06	0.43
9:CI:33:ASN:HD22	9:CI:64:ARG:HG3	1.84	0.43
1:EA:1716:U:H3	1:EA:1744:A:H62	1.66	0.43
54:FV:491:ARG:HG2	54:FV:687:TYR:CZ	2.53	0.43
39:DG:74:GLU:OE2	39:DG:95:ARG:NE	2.48	0.43
1:GA:2093:G:O2'	1:GA:2094:A:H5'	2.19	0.43
49:FQ:31:HIS:CE1	49:FQ:34:TYR:CD2	3.07	0.43
42:FJ:49:PHE:CD2	46:FN:77:PHE:HZ	2.36	0.43
38:FF:78:PHE:N	38:FF:78:PHE:CD1	2.87	0.43
1:EA:2423:U:H5'	1:EA:2423:U:H6	1.83	0.43
36:FD:191:LEU:HD12	36:FD:191:LEU:O	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:GS:75:PHE:N	19:GS:75:PHE:CD1	2.86	0.43
32:E5:40:GLU:O	32:E5:40:GLU:CG	2.66	0.43
30:A3:31:ILE:O	30:A3:31:ILE:HG13	2.17	0.43
7:AG:165:ASP:N	7:AG:165:ASP:OD1	2.39	0.43
35:BC:72:ARG:HB3	35:BC:75:ILE:HG22	1.99	0.43
54:DV:360:PHE:CD2	54:DV:363:ILE:HD11	2.53	0.43
33:DA:116:A:H61	33:DA:313:A:H1'	1.84	0.43
13:GM:132:THR:CG2	13:GM:133:LYS:N	2.80	0.43
1:AA:1670:C:OP1	59:AA:3432:HOH:O	2.21	0.43
17:CQ:63:ARG:HH12	17:CQ:96:ASP:HA	1.82	0.43
33:HA:1330:U:O4	33:HA:1331:G:C6	2.71	0.43
1:CA:760:G:O6	1:CA:761:A:C2	2.71	0.43
16:AP:50:ARG:NH2	16:AP:51:ASN:OD1	2.51	0.43
23:CW:24:ARG:NH1	23:CW:82:GLU:HB2	2.30	0.43
1:GA:1268:A:H2'	1:GA:1269:A:O4'	2.18	0.43
33:DA:505:G:C8	33:DA:535:A:C4	3.07	0.43
41:HI:55:VAL:O	41:HI:56:ASP:HB3	2.18	0.43
1:EA:1693:U:O2'	3:EC:13:ARG:NH2	2.51	0.43
54:BV:342:VAL:CG2	54:BV:378:ARG:HD2	2.48	0.43
46:FN:28:LYS:HD2	46:FN:29:ALA:HA	2.01	0.43
14:GN:76:VAL:O	14:GN:80:PHE:HD2	2.00	0.43
31:E4:2:LYS:HD3	31:E4:4:ARG:HH22	1.83	0.43
1:CA:2352:A:N1	23:CW:30:VAL:HG11	2.33	0.43
1:GA:2478:A:P	31:G4:2:LYS:HZ1	2.41	0.43
4:ED:107:VAL:HA	4:ED:205:PRO:HA	2.00	0.43
33:FA:373:A:H1'	33:FA:481:G:H1'	2.00	0.43
38:BF:70:VAL:O	38:BF:74:LEU:N	2.51	0.43
9:GI:104:GLN:O	9:GI:105:LEU:HB2	2.19	0.43
1:GA:1441:G:H2'	1:GA:1442:U:C6	2.53	0.43
38:BF:38:ARG:HG2	38:BF:39:LEU:N	2.33	0.43
4:CD:118:PHE:CD1	4:CD:119:ALA:N	2.84	0.43
4:CD:119:ALA:HB1	4:CD:123:LYS:HB3	1.99	0.43
1:EA:1083:U:H4'	32:E5:37:LYS:HE2	1.99	0.43
1:EA:27:G:C2	1:EA:512:G:N3	2.86	0.43
38:FF:38:ARG:HG2	38:FF:39:LEU:H	1.84	0.43
38:FF:38:ARG:NH1	38:FF:61:LEU:HD21	2.34	0.43
44:BL:87:VAL:HG11	44:BL:90:LEU:HD22	1.99	0.43
1:CA:2211:A:O2'	1:CA:2212:A:P	2.76	0.43
1:CA:1714:U:H5'	1:CA:1715:G:H5'	1.99	0.43
17:EQ:88:GLU:HG2	18:ER:49:ILE:HG13	2.00	0.43
50:BR:63:ARG:HB3	50:BR:70:TYR:CE2	2.54	0.43
37:BE:72:ILE:HG12	37:BE:73:ASN:N	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:342:VAL:HG13	54:DV:378:ARG:HD3	2.00	0.43
4:CD:12:THR:CG2	4:CD:13:ARG:N	2.81	0.43
36:FD:188:ARG:NH2	36:FD:197:GLU:OE2	2.49	0.43
33:FA:1239:A:H4'	33:FA:1240:U:H5''	2.01	0.43
33:FA:1297:G:OP1	33:FA:1302:C:N4	2.45	0.43
44:HL:24:LEU:HD22	44:HL:59:ASN:HB2	2.01	0.43
7:CG:84:LYS:HE2	7:CG:132:LEU:C	2.38	0.43
1:EA:2138:G:N3	1:EA:2154:A:N1	2.66	0.43
12:AL:2:ARG:HA	12:AL:5:THR:CG2	2.48	0.43
45:FM:4:ILE:HA	45:FM:57:ARG:CZ	2.49	0.43
33:DA:484:G:C5	33:DA:486:U:H1'	2.53	0.43
37:BE:95:PHE:C	37:BE:95:PHE:HD1	2.21	0.43
1:CA:846:U:O2'	1:CA:847:U:P	2.75	0.43
43:FK:35:THR:HG22	43:FK:41:ALA:HA	2.00	0.43
1:AA:2305:U:C4	1:AA:2306:C:C4	3.06	0.43
33:HA:69:G:O6	33:HA:98:A:N6	2.52	0.43
1:GA:1652:A:C2	1:GA:2006:C:N3	2.87	0.43
11:AK:35:VAL:HG12	11:AK:36:GLY:N	2.32	0.43
24:AX:29:LEU:H	24:AX:29:LEU:HD23	1.83	0.43
7:CG:29:ASN:OD1	7:CG:78:VAL:HA	2.18	0.43
48:FP:42:ILE:HG22	48:FP:43:ALA:N	2.33	0.43
1:AA:257:C:H2'	1:AA:258:G:O4'	2.19	0.43
33:HA:1181:G:O2'	33:HA:1182:G:C8	2.72	0.43
11:AK:19:VAL:CG1	11:AK:41:ILE:HG13	2.48	0.43
43:BK:67:ALA:HB2	43:BK:96:THR:OG1	2.19	0.43
32:A5:121:SER:HG	32:A5:122:GLN:H	1.65	0.43
1:CA:2677:G:H2'	1:CA:2678:C:H6	1.83	0.43
1:AA:959:A:C6	1:AA:960:A:C6	3.07	0.43
38:HF:26:THR:HG22	38:HF:62:MET:CE	2.48	0.43
1:AA:609:A:H2'	1:AA:610:C:O4'	2.17	0.43
33:DA:1349:A:P	41:DI:120:LYS:HE2	2.57	0.43
34:HB:187:ASP:HB2	34:HB:203:ASP:HB3	2.01	0.43
33:HA:792:A:H4'	33:HA:793:U:O5'	2.18	0.43
1:GA:2637:U:H2'	1:GA:2638:G:H5'	2.01	0.43
7:CG:163:TYR:O	7:CG:164:ALA:CB	2.67	0.43
10:CJ:32:LEU:CD2	10:CJ:54:ILE:HG12	2.48	0.43
1:AA:1796:U:H2'	1:AA:1797:G:H8	1.83	0.43
24:AX:52:ALA:O	24:AX:53:LYS:CB	2.66	0.43
23:EW:72:GLY:N	23:EW:73:PRO:HD2	2.32	0.43
1:CA:580:U:H2'	1:CA:581:C:H6	1.84	0.43
30:E3:23:HIS:ND1	30:E3:24:LYS:O	2.45	0.43
1:EA:2636:C:HO2'	4:ED:45:TYR:HH	1.61	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:988:G:H1'	33:HA:1015:G:H22	1.84	0.43
14:EN:98:LEU:HB2	14:EN:112:TYR:HB2	2.00	0.43
2:GB:82:U:C2	2:GB:83:G:C8	3.06	0.43
45:FM:95:LEU:C	45:FM:109:ARG:HG2	2.39	0.43
1:EA:61:C:H2'	1:EA:62:U:H5'	2.00	0.43
1:AA:2207:C:H2'	1:AA:2208:C:C6	2.54	0.43
1:CA:1815:A:C8	1:CA:1817:G:C4	3.07	0.43
11:GK:105:ARG:H	11:GK:105:ARG:HD3	1.83	0.43
11:EK:47:ILE:HG23	11:EK:48:PRO:N	2.34	0.43
1:GA:1864:U:O3'	1:GA:2409:G:N2	2.51	0.43
33:DA:441:A:H61	33:DA:494:G:H22	1.66	0.43
54:FV:519:VAL:HB	54:FV:580:PHE:HB2	2.01	0.43
7:GG:106:LEU:HB3	7:GG:151:ARG:HD3	2.00	0.43
1:EA:2698:U:H2'	1:EA:2699:C:C6	2.54	0.43
1:GA:320:A:OP2	5:GE:132:LYS:HD3	2.18	0.43
33:FA:735:C:H5'	50:FR:60:LYS:HD3	2.00	0.43
39:FG:107:ALA:HB1	39:FG:133:THR:HG23	2.00	0.43
6:GF:72:SER:HB2	6:GF:80:GLN:HB3	2.01	0.43
54:DV:5:THR:HG23	54:DV:6:PRO:CD	2.48	0.43
1:GA:1448:G:C2	1:GA:1464:G:C2	3.07	0.43
53:FU:37:PHE:O	53:FU:38:TYR:CB	2.66	0.43
1:CA:2567:G:H2'	1:CA:2568:U:C6	2.53	0.43
31:E4:33:HIS:O	31:E4:35:GLN:HG3	2.18	0.43
33:BA:829:G:H4'	34:BB:24:PRO:HG3	1.99	0.43
1:CA:1081:U:O3'	9:CI:118:GLY:HA2	2.18	0.43
13:CM:40:ARG:HD3	13:CM:93:VAL:HG21	1.99	0.43
1:AA:577:G:O2'	1:AA:1254:A:OP1	2.36	0.43
33:HA:543:U:P	36:HD:14:ARG:HH21	2.42	0.43
51:BS:55:ARG:HH22	51:BS:79:THR:HG21	1.83	0.43
1:AA:303:G:H2'	1:AA:304:U:O4'	2.17	0.43
1:AA:1309:G:H4'	29:A2:7:PRO:HG2	2.01	0.43
1:AA:2065:C:H1'	1:AA:2449:U:H3	1.83	0.43
1:EA:108:G:O2'	1:EA:347:A:N3	2.37	0.43
1:CA:309:A:C5	1:CA:330:A:C6	3.06	0.43
33:HA:1119:C:OP1	41:HI:85:ARG:NH1	2.52	0.43
33:DA:270:A:H2'	33:DA:271:C:C6	2.54	0.43
1:GA:404:A:H1'	1:GA:405:U:OP2	2.19	0.43
3:EC:140:VAL:HG13	3:EC:189:ALA:HB1	2.00	0.43
54:BV:36:VAL:HG12	54:BV:37:ASN:N	2.34	0.43
5:AE:12:LEU:CD1	5:AE:120:VAL:HG21	2.48	0.43
1:EA:172:A:H2'	1:EA:173:A:C8	2.53	0.43
1:AA:2531:A:OP1	7:AG:174:LYS:CE	2.66	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BV:553:VAL:HG23	54:BV:597:ALA:HB2	2.00	0.43
45:BM:40:ALA:HB3	45:BM:43:VAL:HG23	2.00	0.43
1:EA:1450:G:C6	1:EA:1451:C:N4	2.87	0.43
33:BA:414:A:H2'	33:BA:415:A:C8	2.54	0.43
1:CA:493:G:H2'	1:CA:494:G:O4'	2.18	0.43
9:AI:29:GLN:O	9:AI:30:GLN:HB3	2.17	0.43
10:EJ:64:VAL:CG2	10:EJ:89:PHE:CZ	3.01	0.43
33:BA:1502:A:H5'	33:BA:1504:G:N7	2.34	0.43
1:CA:1153:C:OP1	17:CQ:75:TYR:OH	2.30	0.43
17:CQ:65:ASN:ND2	17:CQ:75:TYR:HB2	2.32	0.43
33:DA:1130:A:N6	33:DA:1131:G:O6	2.51	0.43
33:DA:1124:G:H3'	33:DA:1145:A:N6	2.33	0.43
33:BA:680:C:H2'	33:BA:681:A:C8	2.54	0.43
33:BA:701:U:H4'	33:BA:702:A:O5'	2.19	0.43
1:AA:274:C:C4	1:AA:275:C:C4	3.06	0.43
17:AQ:65:ASN:OD1	17:AQ:69:ARG:NH2	2.51	0.43
1:GA:2387:U:H1'	23:GW:38:ARG:NE	2.33	0.43
34:DB:14:HIS:O	34:DB:14:HIS:CG	2.70	0.43
33:HA:978:A:C6	33:HA:1318:A:C6	3.06	0.43
37:FE:111:MET:O	37:FE:115:LEU:HD22	2.18	0.43
36:FD:36:GLN:O	36:FD:37:ALA:HB2	2.18	0.43
12:GL:91:ASP:HB3	12:GL:94:THR:OG1	2.18	0.43
5:GE:44:ARG:HG3	5:GE:44:ARG:NH2	2.33	0.43
6:AF:152:ASP:N	6:AF:152:ASP:OD1	2.49	0.43
39:FG:15:ASP:HB3	39:FG:20:SER:H	1.83	0.43
1:AA:1654:A:O2'	4:AD:118:PHE:CB	2.66	0.43
23:GW:49:ASN:HA	23:GW:61:LYS:HB2	2.01	0.43
41:BI:89:GLU:HG3	41:BI:90:TYR:H	1.81	0.43
32:A5:100:ALA:CB	32:A5:125:ARG:HE	2.28	0.43
1:CA:2406:A:OP1	59:CA:3561:HOH:O	2.21	0.43
45:BM:22:ILE:HG23	45:BM:66:GLU:HG2	1.99	0.43
44:BL:74:LEU:CD1	44:BL:80:ILE:HG21	2.49	0.43
37:HE:80:THR:HB	37:HE:122:ASN:HD21	1.84	0.43
18:AR:51:VAL:HB	18:AR:52:PRO:CD	2.48	0.43
13:AM:1:MET:O	13:AM:2:LEU:CB	2.66	0.43
15:GO:66:GLY:HA2	15:GO:102:ARG:CZ	2.49	0.43
18:ER:51:VAL:HB	18:ER:52:PRO:HD2	2.00	0.43
33:DA:1201:A:H1'	33:DA:1202:U:OP2	2.18	0.43
41:BI:44:ALA:HB1	41:BI:76:ALA:HB3	2.00	0.43
4:AD:11:MET:H	4:AD:26:VAL:H	1.66	0.43
34:DB:86:CYS:SG	34:DB:221:ARG:HA	2.59	0.43
7:CG:112:VAL:HG23	7:CG:113:ASP:H	1.80	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:72:A:C2'	33:BA:73:C:H5''	2.49	0.43
1:EA:948:C:O2	1:EA:984:A:O2'	2.37	0.43
33:BA:675:A:N6	33:BA:676:A:C6	2.87	0.43
1:CA:1385:A:H1'	1:CA:1386:C:C6	2.53	0.43
1:CA:2311:A:H3'	1:CA:2312:U:C5	2.53	0.43
1:AA:322:A:OP2	5:AE:163:ASN:HB2	2.18	0.43
1:CA:2024:G:C4	1:CA:2040:G:N2	2.86	0.43
2:AB:60:C:H2'	2:AB:61:G:O4'	2.19	0.43
1:EA:747:U:C4	1:EA:2613:U:C5	3.06	0.43
35:BC:13:GLY:HA3	46:BN:97:LYS:HE3	2.01	0.43
33:DA:374:A:O2'	33:DA:451:A:OP2	2.27	0.43
9:AI:74:PRO:HG2	9:AI:77:VAL:CG2	2.49	0.43
33:FA:977:A:H2'	33:FA:978:A:H5''	2.00	0.43
1:EA:1068:G:H21	1:EA:1096:A:H5'	1.83	0.43
53:HU:19:PHE:O	53:HU:22:SER:HB3	2.18	0.43
11:CK:18:ARG:HB2	11:CK:45:GLU:CG	2.48	0.43
31:A4:7:VAL:O	31:A4:8:LYS:HG2	2.18	0.43
1:GA:2720:U:OP1	16:GP:52:ARG:NH2	2.51	0.43
34:HB:119:GLN:HA	34:HB:122:ASP:HB2	2.00	0.43
20:CT:32:LEU:O	20:CT:34:VAL:HG13	2.18	0.43
16:GP:9:GLN:HA	16:GP:12:MET:HG3	2.01	0.43
37:HE:46:VAL:HG21	37:HE:118:ALA:HB2	2.01	0.43
33:FA:375:U:C4	33:FA:376:G:N7	2.86	0.43
1:EA:565:C:H2'	1:EA:566:U:O4'	2.19	0.43
11:AK:24:VAL:CG1	11:AK:30:ARG:HD3	2.48	0.43
33:DA:1305:G:H21	33:DA:1332:A:H2	1.67	0.43
11:CK:14:SER:HB2	11:CK:95:ILE:HD11	1.99	0.43
1:AA:1171:G:N2	1:AA:1179:G:C5	2.86	0.43
7:AG:35:THR:OG1	7:AG:36:LEU:N	2.51	0.43
33:DA:1481:U:O4	59:DA:1793:HOH:O	2.21	0.43
7:AG:18:ILE:HG12	7:AG:23:ILE:HG13	1.99	0.43
1:EA:1198:U:H4'	17:EQ:4:LYS:NZ	2.34	0.43
33:FA:1244:G:H2'	33:FA:1245:C:C6	2.54	0.43
33:FA:719:C:O2'	50:FR:38:LYS:HB3	2.19	0.43
41:FI:7:TYR:CG	41:FI:8:GLY:N	2.86	0.43
33:HA:1163:A:C2	33:HA:1174:G:C2	3.07	0.43
33:BA:522:C:N4	33:BA:523:A:C6	2.87	0.43
1:CA:608:A:C6	1:CA:609:A:C6	3.06	0.43
38:HF:70:VAL:O	38:HF:74:LEU:N	2.52	0.43
34:BB:128:LEU:O	34:BB:129:THR:HG23	2.19	0.43
1:CA:2283:C:H5''	1:CA:2389:G:O2'	2.18	0.43
1:GA:1838:C:C5	1:GA:1899:A:C5	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:GD:14:ILE:HG23	4:GD:22:ILE:HB	2.01	0.43
35:DC:126:ARG:O	35:DC:127:ARG:HB3	2.19	0.43
30:E3:49:VAL:CG2	30:E3:54:LEU:CD1	2.96	0.43
33:DA:1105:A:H2'	33:DA:1106:G:H8	1.84	0.43
7:CG:60:GLY:O	7:CG:61:TRP:HB2	2.19	0.43
19:AS:63:GLY:O	19:AS:64:ALA:HB3	2.17	0.43
1:CA:182:A:C6	1:CA:183:C:C4	3.07	0.43
33:BA:1227:A:N3	33:BA:1227:A:H3'	2.33	0.43
7:EG:22:VAL:HG22	7:EG:36:LEU:CD1	2.49	0.43
1:AA:208:C:H2'	1:AA:209:C:H6	1.83	0.43
1:AA:2603:G:C6	1:AA:2604:U:C4	3.06	0.43
33:HA:390:U:H4'	48:HP:28:ARG:NH2	2.33	0.43
11:CK:19:VAL:CG1	11:CK:41:ILE:CG1	2.97	0.43
33:DA:1272:G:H2'	33:DA:1273:C:C6	2.54	0.43
1:AA:2705:A:H2'	1:AA:2706:A:O4'	2.18	0.43
1:AA:80:G:C2	1:AA:81:G:C8	3.07	0.43
33:HA:1051:C:C4	33:HA:1052:U:C4	3.07	0.43
18:CR:68:ARG:HD3	18:CR:92:TRP:CZ2	2.54	0.43
1:AA:1693:U:C4	1:AA:1977:A:C4	3.06	0.43
2:CB:111:U:H2'	2:CB:112:G:H8	1.84	0.43
26:AZ:5:LYS:HD2	26:AZ:5:LYS:N	2.33	0.43
44:FL:102:LEU:N	44:FL:102:LEU:CD1	2.82	0.43
41:BI:67:VAL:HG13	41:BI:67:VAL:O	2.19	0.43
33:DA:1110:A:OP2	59:DA:1855:HOH:O	2.21	0.43
14:AN:30:ARG:NH2	14:AN:72:ASP:OD2	2.51	0.43
43:FK:125:LYS:HB2	53:FU:35:ARG:HG2	2.01	0.43
1:EA:996:A:C6	1:EA:1160:G:C2	3.06	0.43
33:HA:1306:A:O5'	33:HA:1306:A:H8	2.02	0.43
1:EA:1509:A:O2'	1:EA:1510:G:P	2.76	0.43
1:EA:2364:C:H4'	23:EW:55:ASP:OD1	2.19	0.43
32:A5:68:PRO:HA	32:A5:72:LEU:CG	2.47	0.43
1:CA:2133:G:H5''	1:CA:2155:U:C5	2.53	0.43
1:GA:2336:A:N6	23:GW:40:ARG:HB2	2.33	0.43
1:AA:122:G:O5'	1:AA:122:G:H8	2.02	0.43
54:HV:18:HIS:ND1	54:HV:122:GLN:HB2	2.33	0.43
9:GI:19:PRO:HD2	9:GI:24:GLY:H	1.84	0.43
54:DV:500:ASP:HA	54:DV:520:ILE:O	2.19	0.43
20:AT:19:LYS:O	20:AT:23:ALA:HB3	2.18	0.43
14:GN:75:ILE:O	14:GN:79:LEU:HD12	2.19	0.43
14:GN:79:LEU:O	14:GN:80:PHE:HB2	2.17	0.43
1:GA:142:A:C2	20:GT:2:ILE:HG23	2.53	0.43
17:GQ:65:ASN:ND2	17:GQ:75:TYR:CB	2.81	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:E4:36:ARG:HG2	31:E4:37:GLN:N	2.32	0.43
1:AA:1444:G:N2	1:AA:1548:A:C4	2.86	0.43
12:EL:77:ILE:O	12:EL:110:VAL:O	2.37	0.43
33:BA:1512:U:H2'	33:BA:1513:A:C8	2.53	0.43
1:CA:2661:G:H5'	54:DV:19:ILE:HG13	1.99	0.43
1:GA:2347:C:HO2'	28:G1:20:TYR:HH	1.60	0.43
1:EA:2024:G:O3'	4:ED:154:LYS:NZ	2.38	0.43
1:GA:1857:G:C2	1:GA:1884:G:N3	2.86	0.43
1:EA:100:U:C2	1:EA:101:A:N6	2.86	0.43
33:FA:1182:G:H4'	33:FA:1183:U:H5''	2.00	0.43
38:BF:61:LEU:HG	38:BF:62:MET:H	1.84	0.43
1:CA:1901:A:H2'	1:CA:1902:C:C6	2.53	0.43
34:HB:32:GLY:HA2	34:HB:39:ILE:HB	2.00	0.43
6:AF:97:GLU:O	6:AF:101:ARG:HG2	2.19	0.43
33:BA:1144:G:C2	33:BA:1145:A:C2	3.07	0.43
6:GF:134:GLN:C	6:GF:136:ILE:N	2.72	0.43
33:DA:469:C:C5	33:DA:470:C:C5	3.06	0.43
7:AG:26:LYS:CG	7:AG:27:GLY:N	2.81	0.43
34:FB:53:LEU:HD22	34:FB:216:VAL:HG12	2.01	0.43
33:BA:1181:G:O2'	33:BA:1182:G:N7	2.47	0.43
54:HV:583:TYR:HD1	54:HV:584:HIS:C	2.22	0.43
33:FA:1179:A:H2'	33:FA:1180:A:O4'	2.18	0.43
36:BD:105:MET:SD	36:BD:143:VAL:HG13	2.58	0.43
33:HA:1226:C:P	45:HM:90:ARG:HH12	2.42	0.43
1:AA:340:A:H2'	1:AA:341:C:H5'	2.01	0.43
1:EA:1478:G:H2'	1:EA:1479:G:H8	1.84	0.43
14:CN:51:LEU:HD21	14:CN:70:THR:CG2	2.48	0.43
42:BJ:57:VAL:CG1	42:BJ:58:ASN:H	2.32	0.43
1:EA:272:A:O2'	1:EA:273:G:H8	2.02	0.43
1:AA:684:G:OP1	29:A2:21:ARG:NH1	2.49	0.43
15:AO:31:THR:CG2	15:AO:34:HIS:H	2.32	0.43
1:CA:1025:G:H4'	1:CA:1026:G:OP2	2.18	0.43
2:GB:51:G:H21	2:GB:53:A:N6	2.16	0.43
34:BB:32:GLY:O	34:BB:33:ALA:CB	2.66	0.43
19:GS:63:GLY:O	19:GS:64:ALA:CB	2.65	0.43
1:EA:96:C:H2'	1:EA:97:C:C6	2.53	0.43
34:FB:15:PHE:O	34:FB:40:ILE:HG12	2.19	0.43
26:EZ:39:ASP:CG	26:EZ:44:ARG:HH11	2.22	0.43
30:C3:44:ARG:N	30:C3:45:PRO:HD2	2.33	0.43
33:DA:597:G:C8	33:DA:598:U:C5	3.06	0.43
1:AA:1285:A:N7	1:AA:1329:U:C4	2.86	0.43
4:CD:14:ILE:HD11	4:CD:178:VAL:CG1	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:42:TRP:CD1	46:BN:45:VAL:HG13	2.54	0.43
20:CT:69:ARG:CD	20:CT:70:HIS:H	2.31	0.43
37:HE:83:HIS:CD2	40:HH:96:MET:CE	3.02	0.43
28:E1:46:VAL:HG12	28:E1:47:ILE:N	2.34	0.43
26:CZ:37:ARG:HH11	26:CZ:37:ARG:HG3	1.83	0.43
1:CA:1164:C:H2'	1:CA:1165:A:C8	2.54	0.43
33:DA:1331:G:O2'	33:DA:1332:A:P	2.77	0.43
1:GA:2577:A:H5''	1:GA:2578:G:H5'	2.01	0.43
45:DM:22:ILE:HB	45:DM:25:VAL:HG22	1.99	0.43
9:CI:10:LEU:HD23	9:CI:23:VAL:CG1	2.48	0.43
1:AA:1425:G:H2'	1:AA:1426:G:C8	2.53	0.43
54:BV:546:PRO:HD3	54:BV:583:TYR:CE2	2.53	0.43
3:CC:199:HIS:O	3:CC:202:ARG:HG3	2.19	0.43
1:EA:1099:G:C2	1:EA:1100:C:C6	3.07	0.43
39:FG:79:ARG:NH2	39:FG:82:GLY:HA2	2.33	0.43
17:AQ:46:TYR:CZ	17:AQ:50:ARG:CZ	3.02	0.43
33:BA:376:G:H2'	33:BA:377:G:H8	1.83	0.43
54:HV:505:HIS:O	54:HV:506:ALA:HB3	2.19	0.43
33:DA:1244:G:H2'	33:DA:1245:C:C6	2.54	0.43
1:CA:356:G:C6	1:CA:357:C:C4	3.07	0.43
1:EA:2722:G:H2'	1:EA:2723:C:C6	2.54	0.43
33:DA:755:G:N2	33:DA:756:C:C2	2.86	0.43
43:FK:122:ARG:HG3	53:FU:36:GLU:HB2	2.00	0.43
35:BC:186:THR:HG22	35:BC:187:SER:N	2.34	0.43
33:HA:122:G:C5	33:HA:123:U:C5	3.07	0.43
36:FD:124:MET:HG2	36:FD:129:VAL:HA	2.00	0.43
1:CA:2263:C:N4	23:CW:11:ASN:OD1	2.51	0.43
36:DD:163:GLU:HA	36:DD:167:LYS:HE2	2.01	0.43
1:GA:2270:A:N6	59:GA:3509:HOH:O	2.41	0.43
54:FV:416:ILE:CD1	54:FV:665:GLY:HA2	2.48	0.43
54:FV:177:GLU:N	54:FV:177:GLU:OE1	2.50	0.43
4:AD:32:ASN:N	4:AD:32:ASN:HD22	2.16	0.43
40:DH:63:LEU:N	40:DH:63:LEU:HD22	2.34	0.43
3:EC:172:THR:HG22	3:EC:182:LYS:HG2	2.01	0.43
54:BV:396:THR:HG21	54:BV:406:LEU:HD13	2.00	0.43
34:HB:99:MET:HA	34:HB:106:VAL:HG21	1.99	0.43
10:AJ:111:LYS:CE	10:AJ:112:GLY:H	2.30	0.43
35:FC:22:TRP:HB3	35:FC:59:ARG:HB2	2.00	0.43
16:AP:33:GLU:OE1	16:AP:38:ARG:NH1	2.48	0.43
1:CA:990:A:H1'	1:CA:1156:A:N3	2.33	0.43
23:EW:35:ILE:HA	23:EW:57:THR:HG23	2.00	0.43
1:EA:138:U:OP1	1:EA:139:U:H3'	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:GW:51:GLY:CA	23:GW:59:PHE:CZ	3.01	0.43
1:GA:573:U:O2'	1:GA:574:A:H3'	2.19	0.43
33:DA:1036:A:H3'	33:DA:1037:C:C6	2.53	0.43
1:AA:1072:C:H5'	1:AA:1073:A:OP1	2.19	0.43
1:AA:2353:G:H1'	23:AW:30:VAL:HG12	1.99	0.43
1:AA:2720:U:H2'	1:AA:2721:A:C8	2.53	0.43
54:FV:559:GLU:HB3	54:FV:560:GLN:OE1	2.18	0.43
1:EA:2353:G:H1'	23:EW:30:VAL:HG13	2.00	0.43
33:FA:1308:U:OP1	45:FM:97:VAL:N	2.40	0.43
1:EA:2142:A:N7	1:EA:2147:A:C4	2.87	0.43
50:HR:57:ARG:O	50:HR:61:ARG:HD2	2.18	0.43
34:HB:32:GLY:O	34:HB:33:ALA:CB	2.66	0.43
1:EA:1385:A:C6	1:EA:1403:A:C5	3.07	0.43
43:DK:112:ASP:O	53:DU:4:ILE:HG23	2.18	0.43
6:AF:105:ILE:CD1	6:AF:138:PRO:HG2	2.48	0.43
36:HD:34:ILE:O	36:HD:35:GLU:HB3	2.19	0.43
17:CQ:87:VAL:HB	18:CR:52:PRO:HD3	2.00	0.43
41:DI:51:PRO:HB3	41:DI:84:THR:HG23	1.99	0.43
1:CA:2259:U:C4	1:CA:2427:C:N4	2.87	0.43
33:DA:202:G:HO2'	33:DA:468:A:H8	1.63	0.43
12:AL:82:LEU:CB	12:AL:90:VAL:HG21	2.48	0.43
33:FA:142:G:H2'	33:FA:142:G:N3	2.33	0.43
4:AD:115:GLY:O	14:AN:3:HIS:NE2	2.49	0.43
11:CK:5:GLN:O	11:CK:6:THR:HB	2.18	0.43
13:GM:50:ARG:CD	13:GM:65:ILE:HD11	2.48	0.43
33:BA:301:G:O2'	59:BA:1733:HOH:O	2.21	0.43
33:DA:484:G:N7	33:DA:486:U:H1'	2.34	0.43
1:AA:728:G:H4'	3:AC:12:ARG:HD3	1.99	0.43
44:DL:99:ARG:HB2	44:DL:117:TYR:HA	2.00	0.43
43:DK:82:LEU:CD2	43:DK:105:PHE:HB3	2.49	0.43
9:AI:77:VAL:C	9:AI:79:LEU:H	2.22	0.43
9:AI:57:VAL:HG23	9:AI:71:LYS:CE	2.49	0.43
1:EA:1868:C:N4	1:EA:1869:G:C6	2.86	0.43
33:FA:1486:G:H2'	33:FA:1487:G:O4'	2.18	0.43
54:DV:495:ARG:O	54:DV:524:PRO:HG3	2.17	0.43
41:BI:38:TYR:CD1	41:BI:39:PHE:CD2	3.07	0.43
40:FH:89:LYS:HG3	40:FH:90:ASP:H	1.84	0.43
15:GO:104:GLN:O	15:GO:107:ALA:HB3	2.19	0.43
13:CM:42:THR:O	13:CM:45:GLN:N	2.49	0.43
32:A5:51:TYR:HD1	32:A5:52:MET:N	2.15	0.43
54:HV:255:ARG:HG2	54:HV:260:GLU:HB2	2.01	0.43
1:GA:807:U:OP2	12:GL:41:ARG:NH1	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:C3:44:ARG:N	30:C3:45:PRO:CD	2.81	0.43
1:EA:995:C:H42	10:EJ:2:LYS:CB	2.32	0.43
9:CI:66:PHE:HE2	9:CI:68:PHE:HB3	1.83	0.43
1:GA:2421:G:P	28:G1:7:LYS:NZ	2.92	0.43
1:EA:1314:C:O2	1:EA:1314:C:H2'	2.19	0.43
10:EJ:114:LEU:O	10:EJ:117:ALA:N	2.51	0.43
40:BH:5:ASP:OD2	40:BH:8:ALA:HB2	2.19	0.43
48:BP:42:ILE:HG22	48:BP:43:ALA:N	2.34	0.43
33:BA:1059:C:O3'	46:BN:85:ARG:NH2	2.52	0.43
1:EA:2297:A:N1	1:EA:2321:U:H5	2.17	0.43
5:AE:120:VAL:CG2	5:AE:193:VAL:HG21	2.49	0.43
1:EA:587:C:O2	12:EL:33:ARG:NH2	2.51	0.43
18:GR:36:ALA:HA	18:GR:58:VAL:HA	2.00	0.43
1:CA:1139:G:O2'	1:CA:1143:A:N1	2.31	0.43
1:CA:1057:A:C2	1:CA:1058:U:C5	3.06	0.43
8:AH:4:ILE:HG21	8:AH:47:PHE:HB2	2.00	0.43
33:DA:223:A:H2'	33:DA:224:U:H6	1.83	0.43
1:CA:1478:G:H22	1:CA:1513:U:H3	1.65	0.43
54:DV:333:LEU:CD2	54:DV:386:ILE:HG12	2.49	0.43
36:BD:132:ILE:HD12	36:BD:134:SER:N	2.34	0.43
1:AA:2760:C:C2'	1:AA:2761:A:H5'	2.49	0.43
49:DQ:19:LYS:HA	49:DQ:48:ASP:O	2.18	0.43
13:GM:77:PRO:HD2	13:GM:80:VAL:HG11	1.99	0.43
33:BA:539:A:H2'	33:BA:540:G:C8	2.53	0.43
40:BH:50:LYS:HE3	40:BH:52:GLU:OE1	2.19	0.43
27:G0:37:HIS:HB3	27:G0:43:THR:HG22	2.01	0.43
54:HV:338:VAL:HG21	54:HV:377:VAL:HG12	2.00	0.43
1:CA:1719:G:H2'	1:CA:1720:U:O4'	2.18	0.43
35:BC:151:VAL:O	35:BC:167:TRP:HA	2.19	0.43
1:CA:1093:G:C6	1:CA:1094:U:C4	3.07	0.43
2:EB:90:C:H5'	13:EM:18:ARG:HG2	2.01	0.43
54:HV:660:LEU:O	54:HV:662:GLU:N	2.46	0.43
30:A3:27:ASN:O	30:A3:35:LYS:NZ	2.49	0.43
1:GA:1669:A:H5''	1:GA:2550:G:OP1	2.19	0.43
54:HV:151:PHE:CE1	54:HV:264:VAL:HG12	2.54	0.43
33:BA:939:G:C6	33:BA:940:C:N4	2.87	0.43
45:DM:95:LEU:HB3	45:DM:96:PRO:HD2	2.00	0.43
21:GU:41:VAL:O	21:GU:59:GLU:HA	2.19	0.43
1:AA:775:G:C2	1:AA:777:G:O6	2.72	0.43
18:ER:27:ILE:HG13	18:ER:33:VAL:CG1	2.48	0.43
1:CA:1006:C:C2	1:CA:1138:G:N2	2.86	0.43
1:CA:565:C:H4'	1:CA:1253:A:N6	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:643:C:H5''	40:DH:32:LEU:HD22	2.00	0.43
1:CA:2783:U:H2'	1:CA:2784:U:H6	1.84	0.43
1:GA:1322:A:C6	1:GA:1323:C:C4	3.07	0.43
33:FA:1164:G:C6	33:FA:1165:U:C4	3.07	0.43
54:DV:317:PHE:CE1	54:DV:343:VAL:CG2	3.02	0.43
1:AA:2810:A:H2'	1:AA:2811:G:O4'	2.18	0.43
1:AA:2637:U:H2'	1:AA:2638:G:H5'	1.99	0.43
33:HA:79:G:O4'	33:HA:79:G:P	2.77	0.43
28:C1:35:LEU:CD2	28:C1:35:LEU:N	2.82	0.43
18:ER:60:LYS:H	18:ER:100:GLY:HA3	1.83	0.43
32:E5:54:VAL:O	32:E5:56:ARG:N	2.52	0.43
33:HA:1305:G:O2'	33:HA:1306:A:C8	2.72	0.43
41:BI:28:ILE:HG23	41:BI:63:LEU:HD23	2.00	0.43
32:A5:105:LYS:HB2	32:A5:107:GLU:OE2	2.19	0.43
34:FB:22:TRP:O	34:FB:22:TRP:CG	2.70	0.43
36:DD:36:GLN:O	36:DD:37:ALA:HB2	2.18	0.43
13:EM:1:MET:O	13:EM:2:LEU:CB	2.66	0.43
16:CP:92:ARG:O	16:CP:92:ARG:HG2	2.18	0.43
1:AA:807:U:OP1	12:AL:36:LYS:NZ	2.27	0.43
39:BG:118:LEU:O	39:BG:122:ASN:N	2.44	0.43
37:FE:16:ILE:HD12	37:FE:137:VAL:HG11	2.00	0.43
1:GA:962:G:H2'	1:GA:963:U:H6	1.84	0.43
6:AF:172:PHE:O	6:AF:174:PHE:N	2.52	0.43
8:CH:27:ARG:NH1	24:CX:63:ILE:CG1	2.80	0.43
1:AA:2314:A:C2	1:AA:2315:G:C4	3.07	0.43
1:CA:2708:G:H1'	14:CN:71:ARG:CZ	2.48	0.43
9:GI:18:ASN:N	9:GI:19:PRO:CD	2.81	0.43
33:FA:1492:A:H62	33:FA:1493:A:N6	2.17	0.43
11:EK:105:ARG:HD2	11:EK:122:VAL:HG13	1.99	0.43
9:AI:130:GLY:HA2	9:AI:133:ARG:HB3	2.01	0.43
10:GJ:64:VAL:HG13	10:GJ:65:THR:O	2.19	0.43
33:FA:1060:U:H5''	42:FJ:53:ILE:HD12	2.01	0.43
1:GA:558:U:H5''	10:GJ:111:LYS:CE	2.46	0.43
9:CI:25:PRO:CB	54:DV:649:VAL:HA	2.48	0.43
6:AF:101:ARG:CG	6:AF:137:PHE:HZ	2.32	0.43
43:DK:88:GLY:N	43:DK:114:THR:HG22	2.32	0.43
18:CR:4:VAL:HG23	18:CR:39:LEU:HB2	2.00	0.43
1:CA:2799:A:C6	1:CA:2801:G:C4	3.07	0.43
1:GA:266:G:C6	1:GA:267:C:C5	3.07	0.43
40:HH:106:THR:HG22	40:HH:107:SER:N	2.34	0.43
34:FB:46:VAL:HG22	34:FB:49:PHE:CZ	2.54	0.43
1:EA:1088:A:O2'	1:EA:1089:A:OP1	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DI:11:ARG:HA	41:DI:78:ALA:HB1	2.00	0.43
1:GA:2108:A:N1	1:GA:2181:U:C5	2.87	0.43
44:HL:24:LEU:HG	44:HL:25:GLU:H	1.84	0.43
1:EA:880:G:C2	1:EA:898:C:C2	3.07	0.43
5:AE:108:ILE:HG23	5:AE:109:LEU:N	2.32	0.43
39:BG:18:PHE:CZ	39:BG:58:GLU:HG2	2.54	0.43
1:GA:2787:C:H1'	4:GD:63:PRO:HG3	2.01	0.43
1:GA:1584:U:H2'	1:GA:1585:C:H5'	2.00	0.43
48:BP:36:VAL:HG11	48:BP:57:ILE:CG1	2.48	0.43
13:CM:22:GLN:O	13:CM:24:THR:N	2.51	0.43
36:DD:91:LEU:H	36:DD:91:LEU:HD12	1.84	0.43
33:FA:978:A:O2'	33:FA:1322:C:H5	2.01	0.43
44:DL:87:VAL:C	44:DL:89:ASP:H	2.22	0.43
1:AA:1205:A:N1	5:AE:165:HIS:HB2	2.34	0.43
16:GP:33:GLU:OE1	33:HA:345:C:H4'	2.19	0.43
12:EL:127:VAL:HG11	12:EL:142:ILE:HG21	2.01	0.43
1:GA:2531:A:OP1	7:GG:174:LYS:HE3	2.18	0.43
31:A4:33:HIS:O	31:A4:35:GLN:HG3	2.18	0.43
33:HA:987:G:N2	33:HA:1218:C:O2	2.46	0.43
6:EF:43:ILE:CG2	6:EF:78:ILE:HG22	2.49	0.43
33:FA:1109:C:OP1	59:FA:1856:HOH:O	2.21	0.43
33:BA:1291:U:H4'	41:BI:42:GLU:HG3	2.01	0.43
42:DJ:53:ILE:HG23	42:DJ:62:ARG:HA	2.01	0.43
48:HP:4:ILE:N	48:HP:4:ILE:HD12	2.34	0.43
36:DD:146:ARG:CZ	36:DD:148:LYS:CD	2.97	0.43
54:FV:255:ARG:HB3	54:FV:261:ILE:HG21	2.01	0.43
1:EA:681:G:C2	1:EA:797:G:C2	3.07	0.43
32:E5:110:ALA:CB	32:E5:113:PHE:CE2	3.02	0.43
33:BA:126:G:C2'	33:BA:127:G:O5'	2.67	0.43
54:BV:34:THR:HG21	54:BV:70:ALA:CB	2.48	0.43
19:ES:71:VAL:CG2	19:ES:71:VAL:O	2.67	0.43
41:FI:91:ASP:CG	41:FI:93:SER:HB3	2.39	0.43
36:DD:4:TYR:CZ	36:DD:11:LEU:HD11	2.54	0.43
12:CL:62:PRO:HG2	30:C3:24:LYS:HD3	1.99	0.43
33:BA:714:G:C6	33:BA:715:A:C6	3.06	0.43
54:HV:549:TYR:CD2	54:HV:593:PHE:CD2	3.07	0.43
34:BB:16:GLY:HA3	34:BB:40:ILE:HG23	2.01	0.43
1:EA:2321:U:H5'	1:EA:2322:A:OP2	2.19	0.43
34:FB:67:LEU:HD13	34:FB:160:LEU:HD11	2.01	0.43
45:DM:3:ARG:HG2	45:DM:9:ILE:CG2	2.49	0.43
1:EA:2680:U:H5'	4:ED:194:PRO:HA	2.01	0.43
1:AA:1710:G:H2'	1:AA:1711:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:HA:688:G:C5	33:HA:700:G:C2	3.07	0.43
10:CJ:31:GLU:HG3	10:CJ:142:ILE:HG22	2.01	0.43
1:EA:2836:U:C4	1:EA:2883:A:N6	2.87	0.43
20:ET:3:ARG:NH2	20:ET:7:LEU:HD21	2.34	0.43
1:AA:244:A:H2'	1:AA:245:G:O4'	2.19	0.43
33:FA:393:A:OP2	48:FP:12:LYS:HD2	2.18	0.43
15:EO:88:LYS:O	15:EO:89:ASP:HB2	2.19	0.43
33:HA:633:G:H2'	33:HA:634:C:C6	2.54	0.43
21:CU:86:PHE:HB2	21:CU:92:VAL:CG1	2.48	0.43
33:BA:185:U:O2	52:BT:76:LYS:NZ	2.52	0.43
1:AA:1565:C:C5	1:AA:1567:G:C6	3.07	0.43
5:GE:65:THR:C	5:GE:67:ARG:H	2.21	0.43
1:GA:53:A:C8	1:GA:54:G:C8	3.07	0.43
54:FV:552:ALA:HB1	54:FV:590:GLU:O	2.19	0.43
4:CD:91:THR:C	4:CD:93:GLY:H	2.22	0.43
54:FV:364:VAL:CG2	54:FV:386:ILE:HD11	2.48	0.43
54:FV:217:GLU:O	54:FV:220:GLN:N	2.51	0.43
33:HA:109:A:C6	33:HA:326:G:C6	3.07	0.43
43:FK:79:ILE:CD1	43:FK:81:ASN:O	2.67	0.43
33:FA:320:A:C2	33:FA:334:C:N3	2.86	0.43
1:GA:686:U:O2	29:G2:11:LYS:HE3	2.17	0.43
52:FT:81:ALA:O	52:FT:85:LYS:HG2	2.18	0.43
1:AA:868:U:C4	1:AA:869:G:N7	2.86	0.43
21:EU:91:LYS:O	21:EU:92:VAL:HG12	2.19	0.43
33:BA:502:A:H2'	33:BA:503:C:O4'	2.19	0.43
34:HB:58:LYS:NZ	34:HB:62:ARG:HG3	2.33	0.43
1:EA:1172:C:N3	1:EA:1173:U:H1'	2.33	0.43
15:EO:71:ALA:O	15:EO:74:VAL:N	2.51	0.43
9:CI:74:PRO:HG2	9:CI:77:VAL:HG21	2.01	0.43
54:HV:657:GLU:OE1	54:HV:686:LYS:NZ	2.51	0.43
6:AF:47:LYS:HA	6:AF:50:ASP:OD2	2.18	0.43
33:BA:309:A:H2'	33:BA:310:G:H8	1.84	0.43
43:BK:73:ALA:HA	43:BK:76:GLU:HG3	2.00	0.43
54:HV:75:MET:HE1	54:HV:202:PHE:HZ	1.83	0.43
52:DT:55:GLN:N	52:DT:56:PRO:HD2	2.33	0.43
1:EA:1296:G:OP1	1:EA:2709:G:O2'	2.22	0.43
34:HB:98:GLY:C	34:HB:100:LEU:H	2.21	0.43
9:AI:137:LEU:N	9:AI:137:LEU:HD23	2.34	0.43
33:HA:1330:U:OP1	45:HM:24:GLY:N	2.51	0.43
1:CA:2104:C:H2'	1:CA:2105:U:O5'	2.19	0.43
53:BU:34:ARG:HH11	53:BU:34:ARG:CG	2.30	0.43
23:GW:23:LYS:O	23:GW:66:VAL:HB	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:HK:14:LYS:NZ	43:HK:15:GLN:O	2.43	0.43
10:AJ:38:GLY:O	10:AJ:43:GLU:HB2	2.19	0.43
33:BA:1376:U:P	39:BG:25:LYS:HZ1	2.34	0.43
1:CA:1913:A:C2	54:DV:591:LEU:CD1	3.01	0.43
1:AA:277:G:H2'	1:AA:361:G:O6	2.19	0.43
1:GA:1064:C:C4	1:GA:1065:U:C4	3.07	0.43
1:GA:193:U:O3'	1:GA:803:U:H4'	2.18	0.43
6:AF:3:LEU:HD12	6:AF:172:PHE:HD1	1.83	0.43
32:E5:91:ALA:CB	32:E5:130:PRO:CB	2.96	0.43
1:AA:639:U:H2'	1:AA:640:C:C6	2.54	0.43
33:BA:1149:C:N3	33:BA:1150:A:C5	2.87	0.43
46:DN:20:TYR:HB2	46:DN:55:SER:OG	2.19	0.43
53:DU:8:GLU:HG3	53:DU:12:PHE:CZ	2.54	0.43
1:CA:1279:G:C4'	14:CN:31:HIS:CD2	3.01	0.43
1:AA:1913:A:N6	54:BV:507:LYS:NZ	2.67	0.43
4:GD:124:ARG:HD2	4:GD:125:TRP:CE2	2.54	0.43
3:EC:203:VAL:O	3:EC:204:LEU:HB2	2.18	0.43
36:BD:91:LEU:HD12	36:BD:91:LEU:H	1.83	0.43
1:CA:1734:G:H2'	1:CA:1735:A:H8	1.83	0.43
34:FB:163:ILE:HG12	34:FB:164:ASP:N	2.33	0.43
34:HB:32:GLY:O	34:HB:33:ALA:HB3	2.19	0.43
33:DA:206:C:H42	33:DA:213:G:H1	1.66	0.43
33:HA:1496:C:C5	33:HA:1497:G:C4	3.07	0.43
1:AA:2211:A:O2'	1:AA:2212:A:P	2.77	0.43
25:GY:6:LEU:HD13	25:GY:56:LEU:HD11	2.00	0.43
44:BL:24:LEU:C	44:BL:26:ALA:H	2.22	0.43
1:EA:2577:A:H5''	1:EA:2578:G:H5'	2.00	0.43
42:BJ:19:ASP:HB3	42:BJ:72:ARG:HH21	1.83	0.43
33:DA:202:G:H21	33:DA:466:A:H61	1.67	0.43
1:AA:170:U:H2'	1:AA:171:U:C6	2.54	0.43
4:GD:106:LYS:HB3	4:GD:206:ALA:CB	2.49	0.43
1:AA:846:U:O2'	1:AA:847:U:O5'	2.33	0.43
33:DA:843:U:OP1	33:DA:846:G:N2	2.52	0.43
44:HL:44:LYS:HB2	44:HL:45:PRO:CD	2.49	0.43
12:GL:109:LYS:HB3	12:GL:111:ILE:CD1	2.49	0.43
7:AG:83:THR:HB	7:AG:84:LYS:HE2	1.99	0.43
5:AE:118:LEU:HD23	5:AE:186:VAL:HG13	2.00	0.43
33:BA:1295:U:N3	33:BA:1296:C:C4	2.86	0.43
1:CA:2039:U:H2'	1:CA:2040:G:H8	1.84	0.43
1:EA:272:A:HO2'	1:EA:273:G:P	2.41	0.43
2:AB:12:C:C5	23:AW:72:GLY:HA3	2.54	0.43
43:BK:84:VAL:HG21	43:BK:100:LEU:CD2	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DG:59:LEU:O	39:DG:62:PHE:HB3	2.19	0.43
7:EG:86:LEU:HB3	7:EG:162:ARG:O	2.19	0.43
12:AL:62:PRO:HG2	30:A3:24:LYS:HD3	2.01	0.43
54:BV:105:VAL:HG23	54:BV:106:LEU:N	2.34	0.43
23:EW:67:LYS:N	23:EW:80:SER:O	2.52	0.43
33:FA:673:A:H2'	33:FA:674:G:C8	2.54	0.43
1:EA:1799:G:OP2	3:EC:269:ARG:NH2	2.52	0.43
40:BH:40:LEU:HB3	40:BH:46:ILE:HG12	2.01	0.43
41:FI:34:SER:O	41:FI:37:GLN:N	2.51	0.43
6:AF:162:ASP:HB3	6:AF:166:ARG:NH1	2.32	0.43
6:GF:151:LEU:CD1	6:GF:153:ILE:HG23	2.49	0.43
1:AA:1000:A:C6	1:AA:1001:A:C6	3.06	0.43
33:HA:689:C:OP1	43:HK:46:THR:CB	2.66	0.43
7:CG:35:THR:HG22	7:CG:36:LEU:N	2.33	0.43
1:GA:2231:U:OP1	24:GX:29:LEU:HD23	2.19	0.43
36:DD:44:ARG:C	36:DD:46:PRO:HD3	2.39	0.43
35:FC:131:ARG:HA	35:FC:134:MET:HE2	2.00	0.43
33:FA:376:G:H2'	33:FA:377:G:H8	1.84	0.43
33:FA:652:U:C2	33:FA:752:G:N2	2.87	0.43
37:BE:56:VAL:HG12	37:BE:60:ILE:CD1	2.49	0.43
33:DA:435:A:C6	33:DA:436:C:C4	3.06	0.43
45:HM:48:LEU:HG	45:HM:52:GLN:HB3	2.01	0.43
33:HA:930:C:O2'	33:HA:931:C:H5'	2.19	0.43
33:DA:367:U:C4	33:DA:394:G:N1	2.87	0.43
1:CA:2544:G:H2'	1:CA:2545:G:H8	1.84	0.43
19:CS:18:ARG:CG	19:CS:76:VAL:HG13	2.49	0.43
4:AD:91:THR:C	4:AD:93:GLY:H	2.21	0.43
1:GA:2834:G:O6	1:GA:2879:A:H2'	2.19	0.43
5:CE:12:LEU:O	5:CE:13:THR:HB	2.18	0.43
45:DM:3:ARG:HG2	45:DM:9:ILE:HG23	2.01	0.43
5:AE:120:VAL:HG21	5:AE:193:VAL:HG21	2.01	0.43
1:AA:208:C:H2'	1:AA:209:C:C6	2.54	0.43
44:HL:83:ARG:NH2	44:HL:96:HIS:CD2	2.87	0.43
31:C4:33:HIS:O	31:C4:35:GLN:HG3	2.19	0.43
6:CF:30:VAL:HA	6:CF:157:THR:HB	2.01	0.43
36:FD:163:GLU:HG2	36:FD:167:LYS:HZ1	1.83	0.43
1:GA:187:G:O2'	1:GA:1365:A:N3	2.43	0.43
36:BD:80:ALA:HA	36:BD:86:THR:CG2	2.48	0.43
39:FG:126:ASP:OD1	39:FG:131:LYS:HG3	2.19	0.43
1:CA:1838:C:N4	1:CA:1898:U:H2'	2.33	0.43
1:CA:2821:A:OP2	14:CN:3:HIS:CE1	2.72	0.43
33:HA:458:U:H2'	33:HA:459:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1927:A:C6	1:AA:1928:A:C6	3.07	0.43
33:BA:1287:A:H2'	33:BA:1288:A:C8	2.54	0.43
47:DO:3:LEU:HD23	47:DO:8:THR:HG22	2.00	0.43
13:AM:12:MET:HB2	13:AM:72:PRO:HD2	2.01	0.43
5:EE:54:GLY:N	5:EE:74:LYS:HE2	2.34	0.43
1:EA:2272:U:H5''	1:EA:2273:A:OP1	2.19	0.43
33:FA:694:A:N1	33:FA:787:A:O2'	2.50	0.43
3:EC:81:GLU:OE1	3:EC:102:TYR:OH	2.17	0.43
54:FV:200:VAL:HG23	54:FV:201:THR:HG23	2.01	0.43
1:GA:228:C:H4'	1:GA:229:C:H5''	2.00	0.43
33:BA:670:G:C2	33:BA:737:C:C2	3.06	0.43
1:AA:2823:A:C5	1:AA:2824:C:C5	3.07	0.43
1:CA:2402:U:O2'	1:CA:2403:C:O5'	2.35	0.43
1:CA:956:G:H5''	13:CM:76:LYS:HD2	2.00	0.43
34:HB:61:SER:C	34:HB:63:LYS:H	2.22	0.43
54:FV:503:GLY:HA3	54:FV:600:ALA:HB2	2.01	0.43
52:BT:68:HIS:C	52:BT:69:LYS:HG3	2.39	0.43
1:CA:1764:C:O2'	1:CA:1765:U:H5'	2.19	0.43
1:CA:119:A:H3'	59:CA:3800:HOH:O	2.19	0.43
3:AC:141:HIS:H	3:AC:141:HIS:CD2	2.37	0.43
1:GA:1647:U:H3'	1:GA:1647:U:P	2.59	0.43
41:DI:72:ILE:HG23	41:DI:73:SER:N	2.34	0.43
3:EC:24:HIS:CE1	3:EC:79:ARG:NH2	2.87	0.43
1:AA:2362:C:OP1	30:A3:39:ARG:NH1	2.52	0.43
51:FS:15:LEU:HD13	51:FS:33:THR:HG21	2.00	0.43
13:GM:135:VAL:HG11	22:GV:57:TYR:CD2	2.54	0.43
1:EA:996:A:C5	1:EA:1160:G:N2	2.87	0.43
10:EJ:44:TYR:HD1	10:EJ:44:TYR:C	2.23	0.43
33:BA:1504:G:C2	59:BA:1867:HOH:O	2.61	0.43
1:AA:995:C:O2'	1:AA:996:A:P	2.77	0.43
23:GW:23:LYS:HE2	23:GW:24:ARG:N	2.34	0.43
23:CW:16:GLU:O	23:CW:17:ALA:HB3	2.19	0.43
32:A5:59:LEU:HG	32:A5:61:ARG:HG2	2.01	0.43
33:DA:1124:G:H3'	33:DA:1145:A:H62	1.83	0.43
1:AA:2387:U:H1'	23:AW:38:ARG:HE	1.84	0.43
1:GA:1095:A:OP1	54:HV:629:GLY:CA	2.67	0.43
33:DA:1003:G:O6	33:DA:1036:A:N6	2.51	0.43
33:DA:881:G:P	44:DL:9:ARG:HH22	2.41	0.43
34:BB:14:HIS:CB	34:BB:208:ALA:HB2	2.49	0.43
41:HI:57:MET:HG2	41:HI:58:VAL:N	2.34	0.43
33:FA:1034:G:O2'	33:FA:1035:A:H5'	2.18	0.43
1:AA:1783:A:OP2	59:AA:3683:HOH:O	2.21	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:64:TRP:CZ3	13:CM:106:ASP:HB2	2.54	0.43
23:AW:49:ASN:ND2	23:AW:50:VAL:N	2.66	0.43
16:EP:50:ARG:HD3	16:EP:51:ASN:H	1.83	0.43
6:CF:151:LEU:CD1	6:CF:153:ILE:HG23	2.49	0.43
1:CA:142:A:H2	20:CT:2:ILE:HG23	1.82	0.43
33:HA:1299:A:H2'	33:HA:1299:A:N3	2.33	0.43
38:BF:42:TRP:HE3	38:BF:45:ARG:NE	2.16	0.43
6:AF:51:ASN:O	6:AF:55:ASP:N	2.51	0.43
7:CG:23:ILE:H	7:CG:23:ILE:HD12	1.84	0.43
33:BA:747:A:H5'	33:BA:748:G:OP2	2.18	0.43
4:CD:68:PHE:HB3	4:CD:73:VAL:HG12	2.00	0.43
35:HC:142:MET:HE2	35:HC:148:GLY:HA2	2.00	0.43
1:GA:1196:C:O4'	1:GA:1226:A:C2	2.72	0.43
12:AL:122:VAL:CG2	12:AL:142:ILE:HG12	2.49	0.43
23:CW:72:GLY:N	23:CW:73:PRO:CD	2.81	0.43
33:FA:142:G:H3'	33:FA:143:A:H8	1.84	0.43
47:DO:42:HIS:CE1	47:DO:46:HIS:HD2	2.37	0.43
27:C0:24:VAL:C	27:C0:26:SER:H	2.22	0.43
4:GD:55:LYS:HE2	4:GD:60:VAL:HA	2.01	0.43
11:CK:72:PRO:O	11:CK:74:GLY:N	2.46	0.43
54:BV:231:GLU:HA	54:BV:234:MET:HG2	2.00	0.43
45:HM:10:PRO:O	45:HM:11:ASP:HB2	2.19	0.43
28:C1:24:LYS:HE3	28:C1:29:LYS:O	2.18	0.43
36:BD:171:LEU:N	36:BD:171:LEU:HD12	2.33	0.43
33:DA:1086:U:O2	33:DA:1086:U:C2'	2.67	0.43
41:HI:9:THR:HG22	41:HI:10:GLY:N	2.34	0.43
1:AA:2376:A:O2'	15:AO:111:ARG:NH1	2.45	0.43
1:GA:1906:G:OP1	1:GA:1930:G:N7	2.51	0.43
45:FM:54:ASP:O	45:FM:58:ASP:HB2	2.19	0.43
22:EV:75:GLN:HA	22:EV:75:GLN:OE1	2.19	0.43
1:EA:2037:A:C6	1:EA:2038:G:C6	3.06	0.43
36:HD:73:ARG:NH1	36:HD:77:LYS:HE3	2.34	0.43
1:AA:581:C:H2'	1:AA:582:A:C8	2.54	0.43
43:DK:71:ALA:CB	43:DK:105:PHE:HE2	2.32	0.43
10:CJ:64:VAL:HG11	10:CJ:68:LYS:HB2	2.01	0.43
1:EA:79:C:C4	1:EA:80:G:N7	2.86	0.43
41:DI:22:LYS:O	41:DI:62:ASP:N	2.49	0.43
33:BA:842:U:H3'	33:BA:843:U:H5''	2.01	0.43
21:AU:53:GLN:N	21:AU:54:PRO:CD	2.82	0.43
1:AA:393:C:H2'	1:AA:394:C:H6	1.84	0.43
35:FC:150:LYS:HE3	35:FC:201:TRP:CZ3	2.54	0.43
31:A4:7:VAL:O	31:A4:35:GLN:NE2	2.44	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1568:G:H4'	3:EC:58:LYS:HB3	2.00	0.43
15:CO:36:TYR:N	15:CO:36:TYR:HD1	2.17	0.43
20:CT:32:LEU:O	20:CT:83:ALA:HB2	2.19	0.43
48:DP:10:GLY:HA3	48:DP:15:PRO:HA	2.00	0.43
1:AA:498:G:C6	1:AA:499:U:C4	3.06	0.43
36:BD:173:VAL:HG22	36:BD:174:ASP:H	1.83	0.43
3:CC:109:LEU:HG	3:CC:110:LYS:H	1.83	0.43
39:FG:106:GLU:HA	39:FG:109:ARG:HE	1.83	0.43
32:E5:110:ALA:HB1	32:E5:113:PHE:CZ	2.53	0.43
33:DA:1453:G:H3'	33:DA:1453:G:N3	2.34	0.43
1:AA:571:U:C4	1:AA:2030:A:N1	2.87	0.43
7:CG:35:THR:HG22	7:CG:36:LEU:H	1.84	0.43
13:GM:1:MET:O	13:GM:2:LEU:CB	2.66	0.43
33:HA:327:A:O2'	33:HA:328:C:O4'	2.29	0.43
33:FA:390:U:H2'	33:FA:391:G:H8	1.84	0.43
45:HM:48:LEU:HD21	45:HM:53:ILE:HA	2.01	0.43
1:AA:880:G:H1	1:AA:897:C:N4	2.16	0.43
35:HC:123:GLN:HB3	35:HC:128:VAL:CG1	2.49	0.43
1:GA:2051:A:H61	1:GA:2614:A:C2'	2.31	0.43
33:DA:537:G:H5''	44:DL:110:ARG:NH1	2.33	0.43
33:FA:1244:G:C4	33:FA:1294:G:N2	2.87	0.43
33:BA:176:C:H4'	52:BT:24:ARG:HH22	1.84	0.43
1:CA:1005:C:C2	1:CA:1143:A:C5	3.07	0.43
59:AA:3304:HOH:O	4:AD:138:LEU:HD11	2.18	0.43
1:AA:2665:A:C2	1:AA:2666:C:C2	3.07	0.43
16:AP:36:LYS:NZ	33:BA:346:G:N7	2.62	0.43
7:GG:118:ALA:O	7:GG:120:ILE:N	2.42	0.43
33:FA:1248:A:C4	33:FA:1290:G:N2	2.87	0.43
54:DV:336:PHE:HE2	54:DV:385:ALA:HB2	1.84	0.43
1:EA:2892:G:H5''	1:EA:2894:G:N2	2.34	0.43
7:CG:41:GLU:HG2	7:CG:52:GLY:O	2.19	0.43
35:BC:153:VAL:CG2	35:BC:157:LEU:HD21	2.49	0.43
54:HV:142:ASN:OD1	54:HV:143:LYS:N	2.45	0.43
1:AA:565:C:H2'	1:AA:566:U:O4'	2.19	0.43
14:EN:56:LYS:HD2	14:EN:88:ALA:HA	2.00	0.43
1:GA:760:G:H2'	1:GA:761:A:O4'	2.19	0.43
33:FA:404:G:O6	36:FD:2:ALA:N	2.51	0.43
10:AJ:37:ARG:HG3	10:AJ:118:MET:SD	2.59	0.43
13:EM:4:PRO:CG	13:EM:70:ASP:HA	2.49	0.43
7:EG:124:CYS:SG	7:EG:130:ILE:HG12	2.59	0.43
47:HO:16:GLY:C	47:HO:18:ASP:H	2.22	0.43
33:FA:1130:A:OP1	41:FI:18:ARG:NH2	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BH:96:MET:O	40:BH:99:LEU:HG	2.19	0.43
1:CA:2230:G:H2'	1:CA:2231:U:C6	2.54	0.43
1:GA:1840:G:N3	1:GA:1840:G:H2'	2.33	0.43
1:AA:617:G:OP1	5:AE:102:ARG:NE	2.47	0.43
47:HO:41:GLY:O	47:HO:44:ALA:HB2	2.19	0.43
33:FA:189:A:C6	33:FA:190:A:C6	3.07	0.43
1:EA:2502:G:H5'	1:EA:2503:A:H5''	2.01	0.42
17:CQ:60:TRP:CE2	17:CQ:93:ILE:HB	2.54	0.42
3:CC:68:ARG:HD3	3:CC:103:ILE:CD1	2.48	0.42
1:AA:2886:A:C2	27:A0:28:SER:HB3	2.54	0.42
1:EA:2331:G:N3	1:EA:2336:A:C2	2.87	0.42
32:A5:54:VAL:HA	32:A5:84:TYR:O	2.19	0.42
9:CI:87:SER:OG	9:CI:88:GLY:N	2.52	0.42
10:CJ:44:TYR:O	10:CJ:45:THR:HB	2.19	0.42
33:HA:981:U:O2'	46:HN:61:ARG:NE	2.52	0.42
23:GW:40:ARG:HE	23:GW:56:HIS:CD2	2.37	0.42
1:EA:1378:A:C4	1:EA:1380:G:N7	2.87	0.42
20:AT:39:THR:HB	20:AT:42:GLU:CB	2.48	0.42
54:HV:627:ASN:ND2	54:HV:674:THR:HA	2.34	0.42
36:HD:102:VAL:HG13	36:HD:107:PHE:HB2	2.01	0.42
9:GI:55:PRO:HG2	9:GI:72:THR:O	2.18	0.42
6:CF:41:GLU:HB2	6:CF:48:LEU:CD2	2.49	0.42
16:AP:19:PHE:O	16:AP:20:ARG:HB2	2.19	0.42
37:HE:111:MET:CE	37:HE:125:ALA:HB1	2.49	0.42
35:FC:77:ILE:HA	35:FC:84:VAL:CG2	2.48	0.42
19:CS:107:VAL:O	19:CS:107:VAL:HG13	2.19	0.42
19:CS:29:VAL:CG1	19:CS:55:ILE:HD11	2.48	0.42
37:FE:95:PHE:CZ	37:FE:97:GLN:HG2	2.54	0.42
39:DG:122:ASN:O	39:DG:126:ASP:HB2	2.18	0.42
10:GJ:111:LYS:CG	10:GJ:112:GLY:H	2.32	0.42
1:EA:2747:G:O2'	7:EG:66:THR:HG22	2.19	0.42
2:GB:86:G:H2'	2:GB:87:U:H5''	2.01	0.42
6:AF:35:LEU:CD2	6:AF:35:LEU:N	2.82	0.42
1:CA:1316:U:H2'	1:CA:1317:G:C8	2.53	0.42
34:FB:53:LEU:HD21	34:FB:212:TYR:CE1	2.54	0.42
1:EA:2107:G:C6	1:EA:2108:A:C8	3.06	0.42
1:EA:2017:U:H5''	1:EA:2018:G:P	2.59	0.42
1:AA:846:U:O2'	1:AA:847:U:P	2.77	0.42
11:CK:118:LEU:HD12	11:CK:118:LEU:N	2.34	0.42
1:CA:478:A:C6	1:CA:480:A:C6	3.07	0.42
1:AA:740:C:H5'	1:AA:1784:A:H3'	2.01	0.42
7:AG:104:LEU:HD12	7:AG:112:VAL:HG21	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:A1:7:LYS:HE3	30:A3:33:THR:CG2	2.48	0.42
34:HB:70:GLY:HA2	34:HB:163:ILE:CG2	2.49	0.42
33:FA:683:G:C6	33:FA:684:U:C4	3.07	0.42
2:AB:55:U:H2'	2:AB:56:G:C8	2.54	0.42
52:DT:58:VAL:CG1	52:DT:72:ALA:HB1	2.48	0.42
24:GX:52:ALA:O	24:GX:53:LYS:CB	2.67	0.42
50:HR:36:SER:HB3	53:HU:4:ILE:CG1	2.50	0.42
11:AK:62:VAL:CG1	11:AK:65:THR:HG22	2.48	0.42
33:FA:746:A:N1	33:FA:747:A:N6	2.67	0.42
33:FA:746:A:H2'	33:FA:747:A:C8	2.54	0.42
9:CI:99:LYS:HA	9:CI:137:LEU:HB3	1.99	0.42
1:AA:631:A:N3	1:AA:2415:G:O2'	2.38	0.42
39:FG:145:ALA:O	39:FG:147:ALA:N	2.51	0.42
2:GB:52:A:N7	15:GO:64:TYR:OH	2.43	0.42
43:BK:97:ILE:HD11	43:BK:110:ILE:HD13	2.00	0.42
1:AA:608:A:H2'	1:AA:609:A:C8	2.54	0.42
1:GA:548:G:H4'	1:GA:549:G:C2	2.54	0.42
54:BV:30:ILE:O	54:BV:34:THR:HG22	2.19	0.42
9:CI:41:PHE:HA	9:CI:68:PHE:HZ	1.84	0.42
21:GU:70:ALA:CB	21:GU:79:ALA:HB1	2.49	0.42
5:EE:117:ARG:HA	5:EE:185:LYS:HD3	2.01	0.42
20:AT:59:ASN:O	20:AT:84:TYR:HB2	2.18	0.42
2:GB:110:C:C4	2:GB:111:U:C5	3.06	0.42
10:EJ:18:VAL:HG22	10:EJ:140:LEU:HD13	2.00	0.42
33:HA:1193:G:P	35:HC:167:TRP:CH2	3.12	0.42
1:EA:2855:C:H2'	1:EA:2856:A:C8	2.54	0.42
40:BH:99:LEU:N	40:BH:99:LEU:HD23	2.34	0.42
33:BA:518:C:H2'	33:BA:530:G:C8	2.54	0.42
4:AD:142:VAL:HB	4:AD:143:PRO:CD	2.49	0.42
36:FD:15:GLU:HG3	36:FD:19:LEU:HD11	2.01	0.42
38:FF:90:MET:SD	50:FR:61:ARG:NE	2.92	0.42
1:CA:2094:A:P	8:CH:22:LYS:HD2	2.59	0.42
33:FA:1484:C:H2'	33:FA:1485:U:O4'	2.19	0.42
36:BD:98:LEU:HB2	36:BD:135:TYR:HB3	2.01	0.42
1:EA:2537:U:H2'	1:EA:2538:C:C6	2.54	0.42
33:BA:280:C:H4'	33:BA:281:G:OP2	2.19	0.42
2:GB:55:U:H2'	2:GB:56:G:C8	2.54	0.42
11:GK:2:ILE:HD12	11:GK:8:LEU:HD11	2.01	0.42
1:GA:588:U:H1'	5:GE:85:PHE:CD1	2.54	0.42
1:AA:1668:A:N1	1:AA:1675:C:N4	2.67	0.42
40:BH:78:VAL:HG23	40:BH:127:CYS:HA	2.01	0.42
33:DA:757:U:OP1	33:DA:822:U:O2'	2.26	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:65:U:C4	2:AB:108:A:C4	3.06	0.42
29:C2:31:LEU:HD22	29:C2:42:LEU:CD1	2.49	0.42
54:HV:416:ILE:HG12	54:HV:667:ALA:HB3	2.00	0.42
1:AA:1591:A:H2'	1:AA:1592:C:C6	2.53	0.42
49:HQ:15:ASP:OD1	49:HQ:54:GLY:HA2	2.19	0.42
1:GA:2379:G:H4'	15:GO:21:LEU:HD11	2.01	0.42
29:C2:12:ARG:HH11	29:C2:44:VAL:HG11	1.83	0.42
35:BC:43:LEU:HD11	35:BC:91:VAL:CG2	2.48	0.42
53:BU:46:LYS:O	53:BU:50:ALA:N	2.39	0.42
1:AA:1006:C:C2	1:AA:1138:G:N2	2.87	0.42
1:GA:2627:G:N2	1:GA:2777:G:OP2	2.51	0.42
33:BA:1238:A:C8	33:BA:1303:C:H1'	2.54	0.42
2:EB:11:C:O2'	2:EB:15:A:N6	2.51	0.42
1:EA:2665:A:C2	1:EA:2666:C:C6	3.06	0.42
11:CK:9:ASN:O	11:CK:83:ALA:HA	2.19	0.42
54:DV:177:GLU:N	54:DV:177:GLU:OE1	2.46	0.42
10:GJ:123:LYS:N	10:GJ:123:LYS:CD	2.81	0.42
1:EA:12:U:O2	1:EA:12:U:H2'	2.18	0.42
13:CM:20:LEU:HD22	13:CM:20:LEU:N	2.34	0.42
1:GA:669:G:N1	1:GA:801:G:O6	2.52	0.42
1:EA:1817:G:H2'	1:EA:1818:U:H5'	1.99	0.42
10:EJ:64:VAL:HG21	10:EJ:89:PHE:CZ	2.54	0.42
43:DK:14:LYS:O	43:DK:15:GLN:HB3	2.19	0.42
43:HK:122:ARG:NH1	53:HU:36:GLU:HG3	2.34	0.42
53:BU:34:ARG:CG	53:BU:35:ARG:H	2.32	0.42
43:HK:13:ARG:O	43:HK:14:LYS:HB3	2.19	0.42
34:FB:20:ARG:HH12	34:FB:38:HIS:HD2	1.68	0.42
34:FB:20:ARG:O	34:FB:22:TRP:N	2.47	0.42
32:A5:68:PRO:HA	32:A5:72:LEU:HD11	2.01	0.42
1:CA:1824:G:OP2	3:CC:52:HIS:CE1	2.72	0.42
1:AA:2331:G:O2'	1:AA:2336:A:N1	2.52	0.42
1:GA:1088:A:HO2'	1:GA:1089:A:P	2.38	0.42
34:FB:132:GLU:HG2	34:FB:132:GLU:O	2.20	0.42
1:AA:2310:C:H2'	6:AF:76:PHE:CE2	2.53	0.42
46:BN:26:GLU:C	46:BN:28:LYS:H	2.22	0.42
54:BV:598:SER:O	54:BV:602:LYS:HD3	2.19	0.42
10:AJ:81:ILE:CG1	10:AJ:82:GLY:H	2.33	0.42
33:FA:451:A:N1	33:FA:481:G:C5	2.87	0.42
32:A5:47:GLU:HG2	32:A5:95:LEU:HD21	2.01	0.42
4:GD:80:TRP:CD1	4:GD:202:ILE:HD11	2.55	0.42
6:EF:134:GLN:OE1	6:EF:149:ARG:HB3	2.19	0.42
6:EF:41:GLU:HB2	6:EF:48:LEU:CD2	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:1166:G:N2	33:FA:1171:A:C6	2.87	0.42
23:CW:49:ASN:C	23:CW:49:ASN:ND2	2.71	0.42
34:DB:67:LEU:HB3	34:DB:160:LEU:HD12	2.00	0.42
33:DA:922:G:C6	33:DA:923:A:C6	3.07	0.42
1:CA:171:U:H2'	1:CA:172:A:H8	1.84	0.42
4:GD:106:LYS:HB3	4:GD:206:ALA:HB3	2.01	0.42
1:GA:1045:C:O2	1:GA:1047:G:N1	2.52	0.42
1:GA:2885:G:H2'	1:GA:2886:A:O4'	2.19	0.42
37:BE:156:LYS:HD2	40:BH:71:VAL:HA	2.00	0.42
32:E5:118:ILE:HB	32:E5:119:PRO:HD3	2.01	0.42
35:BC:11:ARG:O	35:BC:13:GLY:N	2.52	0.42
33:DA:354:G:C6	33:DA:355:C:N4	2.87	0.42
36:BD:188:ARG:HH12	36:BD:192:SER:HB2	1.84	0.42
1:GA:1019:U:C6	1:GA:1020:A:N7	2.88	0.42
21:GU:86:PHE:O	21:GU:87:GLU:HB3	2.20	0.42
1:EA:1591:A:H2'	1:EA:1592:C:C6	2.54	0.42
1:EA:546:U:O2'	1:EA:547:A:H4'	2.18	0.42
4:CD:101:PHE:O	4:CD:104:VAL:N	2.51	0.42
1:GA:635:C:P	12:GL:126:ARG:NH1	2.92	0.42
53:HU:19:PHE:CD1	53:HU:19:PHE:C	2.92	0.42
33:DA:77:A:H8	33:DA:77:A:H5''	1.84	0.42
37:DE:46:VAL:HG12	37:DE:118:ALA:HA	2.02	0.42
1:EA:2724:U:OP1	4:ED:116:LYS:NZ	2.38	0.42
41:BI:42:GLU:O	41:BI:45:ARG:HG2	2.19	0.42
2:GB:32:U:H2'	2:GB:33:G:C8	2.54	0.42
1:CA:2555:U:C5	1:CA:2556:C:C2	3.08	0.42
43:HK:93:ARG:HH22	53:HU:20:LYS:HD2	1.83	0.42
11:GK:5:GLN:O	11:GK:6:THR:CB	2.66	0.42
33:HA:977:A:O2'	33:HA:979:C:OP2	2.35	0.42
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.53	0.42
32:E5:113:PHE:O	32:E5:123:ILE:HB	2.20	0.42
23:GW:71:LYS:HB3	23:GW:72:GLY:H	1.69	0.42
32:A5:17:GLU:HA	32:A5:88:HIS:CE1	2.55	0.42
52:DT:83:ILE:O	52:DT:87:ALA:HB3	2.19	0.42
1:EA:2579:C:OP1	59:EA:3540:HOH:O	2.22	0.42
1:AA:2425:A:H5'	1:AA:2427:C:O4'	2.19	0.42
4:CD:8:LYS:HB2	4:CD:201:LEU:HD22	2.00	0.42
24:CX:44:ARG:HG2	24:CX:45:PHE:N	2.34	0.42
1:CA:1709:U:H2'	1:CA:1710:G:C8	2.54	0.42
34:DB:150:ILE:HG13	34:DB:153:MET:HB3	2.00	0.42
14:GN:33:ILE:CG1	14:GN:114:GLU:HB3	2.49	0.42
33:HA:381:C:H2'	33:HA:382:A:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1341:G:OP1	1:AA:1397:U:N3	2.49	0.42
10:GJ:114:LEU:O	10:GJ:117:ALA:HB3	2.19	0.42
1:GA:2051:A:C6	1:GA:2614:A:C8	3.08	0.42
1:GA:933:A:H5'	1:GA:934:U:OP2	2.19	0.42
1:GA:675:A:C6	1:GA:676:A:C6	3.07	0.42
2:EB:51:G:C6	2:EB:52:A:C6	3.06	0.42
38:HF:78:PHE:N	38:HF:78:PHE:CD1	2.86	0.42
1:AA:400:G:N7	24:AX:56:ARG:NH1	2.68	0.42
33:BA:376:G:H5''	48:BP:5:ARG:HB2	2.02	0.42
33:BA:1241:G:H2'	33:BA:1242:G:H8	1.83	0.42
1:AA:2283:C:C2	1:AA:2389:G:C2	3.07	0.42
33:HA:160:A:H2'	33:HA:161:A:O4'	2.18	0.42
1:GA:300:A:H2'	1:GA:334:C:H1'	2.01	0.42
54:HV:317:PHE:CE1	54:HV:343:VAL:CG2	3.02	0.42
33:DA:690:G:H2'	33:DA:691:G:O4'	2.18	0.42
33:HA:1248:A:H4'	41:HI:33:ARG:HH12	1.84	0.42
51:HS:29:LYS:HB3	51:HS:30:PRO:HD2	2.01	0.42
33:HA:1059:C:O3'	46:HN:85:ARG:NH2	2.52	0.42
35:HC:130:PHE:CG	35:HC:131:ARG:N	2.87	0.42
36:HD:147:GLU:HA	36:HD:150:LYS:HD2	2.01	0.42
5:EE:145:ASP:HB3	5:EE:184:ASP:HB2	2.01	0.42
33:BA:1266:G:C6	33:BA:1270:G:C6	3.08	0.42
1:AA:308:G:N2	1:AA:477:A:C8	2.86	0.42
1:AA:934:U:H2'	1:AA:935:C:C6	2.54	0.42
24:EX:38:TRP:NE1	24:EX:40:GLU:HB2	2.34	0.42
38:DF:52:ASN:O	38:DF:53:LYS:CB	2.67	0.42
9:GI:74:PRO:O	9:GI:77:VAL:HG13	2.19	0.42
20:CT:11:LEU:O	25:CY:29:ARG:NH1	2.47	0.42
13:AM:73:ILE:HG21	13:AM:91:TYR:CZ	2.53	0.42
2:GB:3:C:H2'	2:GB:4:C:C6	2.54	0.42
1:AA:58:G:N2	1:AA:70:G:C4	2.88	0.42
36:DD:23:SER:H	36:DD:110:THR:HG22	1.84	0.42
33:BA:475:C:H2'	33:BA:476:U:C6	2.54	0.42
11:AK:107:LEU:HD21	11:AK:115:ILE:HG21	2.01	0.42
1:EA:1706:C:C2	1:EA:1757:A:H5'	2.54	0.42
35:BC:39:VAL:CG2	35:BC:40:ARG:N	2.81	0.42
54:HV:34:THR:HG21	54:HV:70:ALA:CB	2.49	0.42
41:FI:11:ARG:HB2	41:FI:15:SER:O	2.19	0.42
46:BN:33:ASP:O	46:BN:35:ASN:N	2.52	0.42
1:GA:2722:G:H4'	14:GN:4:ARG:HB2	2.01	0.42
1:CA:2145:C:H3'	1:CA:2146:C:C5'	2.49	0.42
1:CA:853:C:H2'	1:CA:854:C:C6	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1404:C:H2'	33:BA:1405:G:C8	2.54	0.42
33:DA:1387:G:C6	33:DA:1388:C:N4	2.87	0.42
1:GA:2277:G:C6	1:GA:2278:A:N7	2.87	0.42
3:CC:200:MET:HB3	3:CC:200:MET:HE2	1.95	0.42
4:ED:32:ASN:HD22	4:ED:32:ASN:N	2.18	0.42
24:EX:28:PHE:CD1	24:EX:28:PHE:N	2.87	0.42
28:A1:31:GLU:OE2	28:A1:31:GLU:N	2.43	0.42
17:AQ:88:GLU:O	17:AQ:88:GLU:HG3	2.19	0.42
1:CA:1593:A:H2'	1:CA:1594:U:O4'	2.18	0.42
33:BA:232:G:H1'	33:BA:262:A:N1	2.34	0.42
33:DA:674:G:H4'	50:DR:70:TYR:CE1	2.54	0.42
1:AA:262:A:C2	1:AA:430:A:N3	2.87	0.42
1:EA:651:G:H5'	30:E3:18:LYS:HG3	2.01	0.42
36:DD:104:ARG:NH1	36:DD:111:ARG:HH22	2.17	0.42
1:AA:973:A:O4'	1:AA:1188:U:C6	2.72	0.42
35:FC:22:TRP:HB3	35:FC:59:ARG:H	1.85	0.42
43:DK:125:LYS:O	53:DU:34:ARG:CZ	2.68	0.42
16:AP:58:PHE:HD1	16:AP:75:THR:HG22	1.84	0.42
1:CA:1786:A:C4	1:CA:1938:A:C6	3.07	0.42
33:BA:685:G:O2'	33:BA:686:U:H5'	2.19	0.42
33:BA:707:U:H2'	33:BA:708:C:C6	2.54	0.42
1:EA:2325:G:C6	1:EA:2326:C:N4	2.88	0.42
2:AB:58:A:C5	2:AB:59:A:C8	3.07	0.42
1:CA:2101:A:N1	1:CA:2102:G:N1	2.68	0.42
1:AA:2269:G:C2	1:AA:2270:A:C8	3.07	0.42
1:GA:574:A:H4'	1:GA:575:A:O5'	2.19	0.42
46:HN:45:VAL:HG23	46:HN:46:LEU:H	1.84	0.42
36:HD:145:ILE:HG22	36:HD:146:ARG:O	2.19	0.42
1:EA:2148:G:OP2	1:EA:2149:U:H1'	2.19	0.42
1:GA:1279:G:C6	1:GA:1292:G:C6	3.07	0.42
14:CN:30:ARG:HG2	14:CN:31:HIS:CE1	2.53	0.42
4:GD:119:ALA:CB	4:GD:124:ARG:HB2	2.49	0.42
19:AS:71:VAL:CG2	19:AS:71:VAL:O	2.66	0.42
15:CO:3:LYS:HG3	15:CO:4:LYS:H	1.82	0.42
1:CA:2742:G:N7	59:CA:3774:HOH:O	2.36	0.42
26:EZ:9:THR:HG22	26:EZ:53:MET:O	2.18	0.42
33:DA:207:C:C2'	33:DA:208:U:C5	3.03	0.42
6:AF:90:LEU:CD1	6:AF:98:PHE:HB3	2.49	0.42
1:AA:35:G:C4	1:AA:454:A:C2	3.08	0.42
38:FF:42:TRP:CD1	38:FF:42:TRP:N	2.87	0.42
1:CA:528:A:H3'	1:CA:528:A:H8	1.83	0.42
17:EQ:67:ALA:HB1	17:EQ:105:PHE:CE2	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BH:112:THR:CG2	40:BH:115:ALA:H	2.32	0.42
1:EA:983:A:C6	1:EA:984:A:C2	3.08	0.42
1:GA:2210:U:H4'	1:GA:2211:A:C5'	2.49	0.42
1:AA:1533:C:H2'	1:AA:1534:U:H5''	2.02	0.42
1:AA:320:A:H4'	1:AA:322:A:C8	2.54	0.42
13:CM:2:LEU:HD12	13:CM:69:PRO:HD2	2.01	0.42
7:AG:38:ASP:CG	7:AG:39:ALA:H	2.22	0.42
49:HQ:75:LEU:HD11	49:HQ:77:ARG:O	2.19	0.42
54:HV:4:THR:CG2	54:HV:378:ARG:CZ	2.98	0.42
46:BN:53:ARG:C	46:BN:55:SER:H	2.22	0.42
33:DA:1253:G:N1	33:DA:1285:A:N6	2.68	0.42
14:CN:55:ALA:HA	14:CN:80:PHE:CE1	2.55	0.42
20:GT:54:GLU:HG3	20:GT:88:LYS:H	1.85	0.42
1:GA:2359:C:H2'	1:GA:2360:G:C8	2.55	0.42
14:EN:44:LEU:HD23	14:EN:113:ILE:HD13	2.01	0.42
52:DT:3:ASN:CG	52:DT:4:ILE:N	2.73	0.42
1:GA:634:C:H5''	12:GL:126:ARG:HH12	1.84	0.42
33:BA:1349:A:P	41:BI:120:LYS:HE2	2.59	0.42
1:CA:880:G:N2	1:CA:898:C:C2	2.87	0.42
8:AH:31:VAL:HB	8:AH:32:PRO:HD3	1.99	0.42
1:GA:548:G:H4'	1:GA:549:G:N2	2.33	0.42
4:CD:22:ILE:HG23	4:CD:190:LYS:CD	2.49	0.42
33:DA:513:C:H2'	33:DA:514:C:H6	1.85	0.42
33:DA:454:G:C2'	33:DA:455:G:H5'	2.49	0.42
5:EE:111:GLU:HG2	5:EE:114:ARG:NH1	2.34	0.42
18:CR:21:ARG:NH2	18:CR:93:PHE:CZ	2.88	0.42
1:GA:2526:G:C6	1:GA:2527:C:C4	3.08	0.42
43:FK:16:VAL:HG13	43:FK:17:SER:N	2.34	0.42
1:GA:2840:C:H2'	1:GA:2841:C:C6	2.54	0.42
45:HM:50:GLU:HA	45:HM:53:ILE:HD12	2.01	0.42
6:EF:101:ARG:HA	6:EF:104:THR:HG22	2.00	0.42
11:EK:15:GLY:O	11:EK:47:ILE:N	2.48	0.42
36:BD:9:LEU:CD2	36:BD:22:LYS:CG	2.97	0.42
33:HA:552:U:H5'	44:HL:83:ARG:HH11	1.84	0.42
54:FV:330:VAL:HG21	54:FV:333:LEU:HD21	2.02	0.42
54:BV:495:ARG:HD2	54:BV:611:VAL:HB	2.02	0.42
12:CL:78:ARG:HA	12:CL:113:ALA:HB3	2.00	0.42
35:HC:120:ILE:HD11	35:HC:137:ALA:HB2	2.01	0.42
1:EA:843:G:C2	1:EA:936:A:C2	3.08	0.42
54:FV:493:THR:HG22	54:FV:613:LEU:HD21	1.99	0.42
54:FV:497:LYS:HG2	54:FV:523:TYR:HB2	2.01	0.42
33:FA:300:A:H1'	33:FA:565:U:O2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DB:127:LYS:O	34:DB:129:THR:N	2.52	0.42
1:CA:2096:C:H2'	1:CA:2097:A:C8	2.53	0.42
1:EA:215:G:H4'	1:EA:216:A:H4'	2.00	0.42
54:DV:105:VAL:HG23	54:DV:106:LEU:N	2.35	0.42
18:GR:5:PHE:HE1	18:GR:14:VAL:HG21	1.85	0.42
33:FA:941:G:H2'	33:FA:942:G:O5'	2.19	0.42
16:EP:71:ARG:HD3	16:EP:73:PHE:CZ	2.54	0.42
47:FO:8:THR:O	47:FO:12:VAL:HG23	2.19	0.42
14:GN:58:ASP:OD2	14:GN:63:ARG:NH2	2.52	0.42
43:FK:60:PRO:O	43:FK:95:SER:OG	2.18	0.42
1:GA:753:A:H2'	1:GA:754:U:H6	1.84	0.42
34:HB:185:ILE:HA	34:HB:199:ILE:HG13	2.01	0.42
1:GA:1674:G:N2	1:GA:1677:A:N1	2.65	0.42
33:FA:135:C:H2'	33:FA:136:C:H5'	2.00	0.42
16:EP:38:ARG:CZ	33:FA:345:C:H5'	2.49	0.42
1:CA:910:A:H2'	1:CA:911:A:C8	2.55	0.42
44:HL:30:LYS:O	44:HL:82:ILE:HG22	2.18	0.42
15:CO:88:LYS:O	15:CO:89:ASP:HB2	2.19	0.42
1:CA:646:U:H3'	1:CA:647:G:H5''	2.01	0.42
32:E5:45:GLY:HA2	32:E5:49:GLY:HA2	2.01	0.42
1:AA:2897:U:H2'	1:AA:2898:U:C6	2.53	0.42
1:AA:866:A:C8	1:AA:914:G:C2	3.07	0.42
8:EH:28:ASN:C	8:EH:32:PRO:HG2	2.39	0.42
1:GA:88:G:C2	1:GA:89:A:C8	3.07	0.42
54:HV:272:ASN:O	54:HV:276:GLN:NE2	2.52	0.42
7:EG:96:ALA:HB3	7:EG:103:ASN:HB3	2.00	0.42
27:E0:33:SER:OG	27:E0:35:GLU:HG3	2.20	0.42
1:AA:309:A:C2'	1:AA:329:G:HO2'	2.29	0.42
34:BB:71:THR:O	34:BB:72:LYS:HG2	2.18	0.42
33:BA:1406:U:C5	33:BA:1407:C:C5	3.07	0.42
36:FD:98:LEU:N	36:FD:135:TYR:O	2.51	0.42
1:EA:2076:U:O2	1:EA:2076:U:O4'	2.38	0.42
36:FD:107:PHE:HD2	36:FD:145:ILE:CG1	2.32	0.42
52:BT:66:LEU:HD12	52:BT:66:LEU:C	2.39	0.42
33:FA:49:U:C2	33:FA:361:G:N2	2.87	0.42
1:AA:347:A:C2	1:AA:348:A:C4	3.07	0.42
33:DA:1055:A:C8	33:DA:1206:G:C2	3.07	0.42
10:EJ:4:PHE:O	10:EJ:44:TYR:CE1	2.73	0.42
32:E5:108:VAL:HG12	32:E5:109:LYS:N	2.34	0.42
36:BD:69:GLU:OE1	36:BD:73:ARG:NE	2.52	0.42
33:HA:1124:G:H3'	33:HA:1145:A:N6	2.34	0.42
16:CP:50:ARG:NE	16:CP:57:ALA:H	2.17	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1267:U:O3'	59:AA:3376:HOH:O	2.20	0.42
1:GA:277:G:H2'	1:GA:278:A:OP2	2.19	0.42
1:AA:138:U:H5'	1:AA:139:U:H5''	2.02	0.42
33:DA:1053:G:N7	33:DA:1199:U:H3'	2.34	0.42
4:AD:118:PHE:HD1	4:AD:119:ALA:N	2.11	0.42
1:EA:819:A:OP2	1:EA:1187:G:N2	2.36	0.42
1:AA:42:A:C2'	1:AA:43:G:H5'	2.48	0.42
44:FL:3:THR:HG22	44:FL:6:GLN:H	1.84	0.42
36:BD:65:TYR:HD1	36:BD:65:TYR:N	2.16	0.42
36:DD:116:GLN:O	36:DD:119:SER:HB3	2.20	0.42
1:GA:535:G:C6	1:GA:559:G:C6	3.07	0.42
1:EA:1385:A:H1'	1:EA:1386:C:C6	2.54	0.42
6:GF:174:PHE:CD2	6:GF:176:PHE:CZ	3.07	0.42
18:GR:4:VAL:HG23	18:GR:39:LEU:HB2	2.01	0.42
53:BU:44:GLU:HG2	53:BU:47:ARG:HD2	2.01	0.42
4:CD:73:VAL:HG23	4:CD:74:GLU:H	1.83	0.42
49:BQ:13:VAL:HA	49:BQ:55:ILE:HD13	2.02	0.42
19:ES:63:GLY:O	19:ES:64:ALA:CB	2.67	0.42
33:FA:144:G:C2	33:FA:145:G:C4	3.07	0.42
45:HM:10:PRO:O	45:HM:11:ASP:CB	2.67	0.42
33:HA:1492:A:N3	33:HA:1492:A:H5''	2.33	0.42
36:FD:9:LEU:HD21	36:FD:22:LYS:CG	2.49	0.42
1:AA:443:A:H2	1:AA:1245:G:N3	2.17	0.42
33:DA:842:U:H3'	33:DA:843:U:C5'	2.49	0.42
17:CQ:97:ILE:HD11	17:CQ:105:PHE:N	2.35	0.42
8:EH:4:ILE:O	8:EH:36:ALA:HA	2.20	0.42
7:AG:84:LYS:HZ2	7:AG:133:LYS:HE3	1.83	0.42
1:AA:594:U:H2'	1:AA:595:C:H6	1.81	0.42
33:HA:1225:A:H2'	33:HA:1226:C:C5	2.54	0.42
1:AA:1132:U:H5'	10:AJ:84:ILE:CD1	2.49	0.42
42:DJ:11:LYS:HE2	42:DJ:71:LEU:HD21	2.02	0.42
41:FI:129:LYS:HG3	41:FI:130:ARG:HG2	2.00	0.42
17:AQ:29:ARG:HH11	17:AQ:29:ARG:CG	2.33	0.42
44:DL:90:LEU:HB3	44:DL:93:VAL:CG2	2.48	0.42
1:EA:973:A:OP2	18:ER:81:LYS:NZ	2.39	0.42
42:BJ:7:ARG:HA	42:BJ:75:ASP:HA	2.02	0.42
36:FD:202:GLU:OE2	37:FE:105:ILE:HG23	2.20	0.42
33:FA:1486:G:C6	33:FA:1487:G:C6	3.07	0.42
1:GA:634:C:H2'	1:GA:635:C:C6	2.54	0.42
33:DA:1507:A:N1	33:DA:1508:A:C6	2.88	0.42
1:GA:511:U:OP2	59:GA:3757:HOH:O	2.21	0.42
5:AE:24:ASN:ND2	5:AE:27:LEU:HB2	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DJ:53:ILE:HG12	42:DJ:62:ARG:H	1.84	0.42
7:AG:108:PHE:HE1	7:AG:151:ARG:CZ	2.32	0.42
32:A5:123:ILE:O	32:A5:124:ASP:CB	2.68	0.42
41:HI:129:LYS:HG3	41:HI:130:ARG:N	2.35	0.42
33:FA:1477:U:H2'	33:FA:1478:U:C6	2.54	0.42
13:AM:64:TRP:HZ3	13:AM:106:ASP:HB2	1.84	0.42
2:EB:27:C:C5	2:EB:28:C:C5	3.08	0.42
38:BF:55:HIS:N	38:BF:55:HIS:ND1	2.67	0.42
9:CI:58:ILE:HG23	9:CI:66:PHE:CE2	2.54	0.42
46:BN:41:ARG:NH1	46:BN:45:VAL:HG21	2.35	0.42
33:HA:328:C:O2	33:HA:328:C:H2'	2.19	0.42
34:DB:103:TRP:CH2	34:DB:155:GLY:HA2	2.55	0.42
33:DA:1377:A:C5	39:DG:7:ILE:HD11	2.54	0.42
5:GE:153:LEU:HD22	5:GE:171:ASP:HB3	2.01	0.42
33:DA:1311:A:H2'	33:DA:1312:G:O5'	2.19	0.42
1:AA:1341:G:N2	1:AA:1398:C:H4'	2.35	0.42
43:FK:16:VAL:O	43:FK:17:SER:HB3	2.19	0.42
33:FA:1219:A:H2'	33:FA:1220:G:C8	2.54	0.42
10:CJ:13:ARG:HD3	10:CJ:51:GLY:O	2.19	0.42
1:CA:608:A:H2'	1:CA:609:A:C8	2.55	0.42
11:CK:39:ILE:HG13	11:CK:41:ILE:CD1	2.49	0.42
11:CK:19:VAL:HG11	11:CK:41:ILE:HG12	2.01	0.42
2:EB:11:C:C4	2:EB:12:C:C4	3.07	0.42
1:CA:2145:C:H3'	1:CA:2146:C:H5''	1.99	0.42
8:AH:21:VAL:CG2	8:AH:25:TYR:HD2	2.32	0.42
7:AG:114:HIS:HB2	7:AG:150:TYR:HE2	1.84	0.42
33:BA:787:A:C2	33:BA:796:C:N3	2.87	0.42
1:CA:245:G:O6	30:C3:7:ARG:HD2	2.19	0.42
1:EA:1783:A:H5'	1:EA:2608:G:H4'	2.02	0.42
1:CA:1663:G:C6	1:CA:1992:G:N7	2.88	0.42
18:ER:24:LYS:HA	18:ER:94:THR:HG23	2.01	0.42
1:CA:11:C:C2'	1:CA:12:U:H5'	2.49	0.42
1:AA:1906:G:N2	1:AA:1924:C:O2	2.38	0.42
1:GA:297:G:C6	1:GA:298:G:C4	3.07	0.42
43:FK:82:LEU:HD11	43:FK:105:PHE:CG	2.54	0.42
33:HA:648:A:H2'	33:HA:649:A:C8	2.54	0.42
33:FA:675:A:O2'	43:FK:116:ILE:O	2.35	0.42
1:AA:65:U:O2'	20:AT:73:ARG:NH1	2.52	0.42
33:DA:714:G:H2'	33:DA:715:A:C8	2.54	0.42
1:CA:728:G:H4'	3:CC:12:ARG:HD3	2.00	0.42
54:DV:173:ILE:HD11	54:DV:183:VAL:HG23	2.01	0.42
1:GA:2429:G:H4'	59:GA:3339:HOH:O	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:GL:57:LEU:CD2	30:G3:53:ASP:HB3	2.49	0.42
1:AA:1601:G:P	20:AT:64:LYS:HZ1	2.42	0.42
14:GN:30:ARG:NH2	14:GN:72:ASP:OD2	2.52	0.42
33:FA:1056:U:OP1	35:FC:163:ALA:N	2.36	0.42
1:CA:2686:G:C5	1:CA:2687:U:C4	3.07	0.42
33:HA:949:A:OP1	45:HM:100:GLN:HG2	2.19	0.42
1:CA:2599:G:C2	1:CA:2600:A:C4	3.07	0.42
1:EA:1714:U:H5'	1:EA:1715:G:H5'	1.99	0.42
20:CT:8:LEU:N	20:CT:8:LEU:HD12	2.34	0.42
1:AA:2533:U:H2'	1:AA:2534:A:H5'	2.01	0.42
42:DJ:40:ILE:HD12	42:DJ:73:LEU:HD23	2.01	0.42
1:EA:631:A:N6	1:EA:632:A:C2	2.87	0.42
4:GD:115:GLY:O	14:GN:3:HIS:NE2	2.51	0.42
35:HC:126:ARG:O	35:HC:126:ARG:HG2	2.20	0.42
5:GE:92:HIS:N	5:GE:92:HIS:CD2	2.87	0.42
54:DV:303:LYS:HA	54:DV:303:LYS:CE	2.49	0.42
11:EK:35:VAL:HG12	11:EK:36:GLY:N	2.34	0.42
33:DA:66:A:C2	33:DA:67:C:C6	3.07	0.42
16:EP:85:VAL:HG13	16:EP:86:LYS:N	2.35	0.42
21:AU:94:PHE:HA	21:AU:101:THR:HA	2.00	0.42
11:EK:28:SER:O	11:EK:29:HIS:HB2	2.20	0.42
32:E5:108:VAL:CG1	32:E5:109:LYS:N	2.82	0.42
17:CQ:93:ILE:O	17:CQ:96:ASP:N	2.50	0.42
17:AQ:91:ARG:HB2	17:AQ:94:LEU:HB2	2.02	0.42
43:BK:126:LYS:HE3	43:BK:127:ARG:NH2	2.34	0.42
1:GA:1062:G:C2'	1:GA:1063:G:C8	3.02	0.42
10:GJ:81:ILE:CG1	10:GJ:82:GLY:H	2.32	0.42
1:AA:1069:A:C1'	1:AA:1073:A:H62	2.33	0.42
6:AF:89:THR:HG21	6:AF:91:ARG:CZ	2.49	0.42
44:DL:29:GLN:NE2	44:DL:29:GLN:N	2.68	0.42
43:BK:71:ALA:HB1	43:BK:105:PHE:HE2	1.84	0.42
1:GA:1361:G:C6	1:GA:1362:C:N4	2.87	0.42
47:BO:39:LEU:O	47:BO:42:HIS:HB3	2.19	0.42
10:CJ:111:LYS:N	59:CJ:202:HOH:O	2.52	0.42
33:FA:263:A:H2'	33:FA:264:C:C6	2.54	0.42
46:FN:20:TYR:O	46:FN:23:LYS:HB3	2.20	0.42
1:EA:787:C:P	59:EA:3750:HOH:O	2.78	0.42
45:HM:57:ARG:O	45:HM:60:VAL:HG12	2.19	0.42
33:BA:1033:G:C2'	33:BA:1034:G:H5''	2.50	0.42
1:AA:2017:U:H5''	1:AA:2018:G:P	2.59	0.42
33:DA:71:A:N1	33:DA:99:C:O2'	2.53	0.42
40:HH:106:THR:CG2	40:HH:121:LEU:HD22	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:1102:A:H2'	33:BA:1103:C:C6	2.54	0.42
2:AB:39:A:C2	2:AB:44:G:C2	3.07	0.42
45:HM:114:LYS:HB3	45:HM:115:PRO:HD3	2.02	0.42
49:FQ:74:THR:HG22	49:FQ:75:LEU:N	2.34	0.42
33:FA:845:A:H5'	33:FA:846:G:O4'	2.20	0.42
21:EU:39:ASN:HB2	21:EU:64:ILE:HG21	2.02	0.42
54:BV:218:TRP:CD1	54:BV:218:TRP:N	2.88	0.42
1:CA:857:G:H2'	1:CA:858:G:O4'	2.19	0.42
34:BB:67:LEU:HD12	34:BB:157:PRO:HG3	2.02	0.42
1:GA:2849:U:O4	16:GP:20:ARG:NH1	2.47	0.42
1:GA:2032:G:H21	4:GD:151:THR:HB	1.83	0.42
14:EN:33:ILE:HD11	14:EN:118:ARG:HD3	2.01	0.42
1:CA:2531:A:P	7:CG:174:LYS:HE3	2.59	0.42
33:BA:844:G:C2'	33:BA:845:A:H5''	2.48	0.42
20:ET:26:LYS:O	20:ET:27:SER:CB	2.68	0.42
1:CA:2636:C:H2'	1:CA:2637:U:H6	1.83	0.42
21:AU:86:PHE:CG	21:AU:92:VAL:HG11	2.54	0.42
54:HV:337:ARG:HA	54:HV:382:ILE:HG22	2.00	0.42
20:AT:69:ARG:HG3	20:AT:70:HIS:N	2.34	0.42
33:DA:1014:A:OP2	51:DS:18:LYS:CE	2.67	0.42
38:DF:97:THR:O	38:DF:98:GLU:CB	2.67	0.42
33:DA:1508:A:C2	33:DA:1509:C:C2	3.07	0.42
33:DA:661:G:N3	33:DA:745:G:N2	2.67	0.42
7:GG:162:ARG:CZ	7:GG:168:VAL:HG21	2.49	0.42
40:FH:89:LYS:HA	40:FH:92:LEU:HG	2.01	0.42
3:CC:173:LEU:N	3:CC:173:LEU:CD1	2.82	0.42
1:AA:1316:U:H2'	1:AA:1317:G:H8	1.85	0.42
35:BC:88:ARG:CZ	35:BC:101:ILE:HG22	2.50	0.42
43:DK:128:ARG:CG	43:DK:128:ARG:HH11	2.32	0.42
5:GE:29:HIS:HA	12:GL:6:LEU:HD22	2.00	0.42
44:DL:49:LEU:O	44:DL:51:LYS:HD2	2.19	0.42
33:BA:598:U:H4'	40:BH:86:TYR:CD2	2.55	0.42
19:GS:107:VAL:O	19:GS:107:VAL:HG13	2.20	0.42
1:EA:1061:U:O4'	1:EA:1061:U:O2	2.38	0.42
1:GA:594:U:H2'	1:GA:595:C:C6	2.54	0.42
1:EA:1319:C:C2'	1:EA:1320:C:H5'	2.49	0.42
18:CR:67:GLY:C	18:CR:93:PHE:CE1	2.93	0.42
34:DB:153:MET:O	34:DB:155:GLY:N	2.49	0.42
1:AA:1341:G:C2	1:AA:1398:C:H4'	2.54	0.42
1:CA:2590:A:H2'	1:CA:2591:C:C6	2.54	0.42
36:BD:4:TYR:CZ	36:BD:6:GLY:CA	3.03	0.42
30:A3:22:LYS:HA	30:A3:47:ALA:O	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:55:ARG:NH2	51:BS:79:THR:HG21	2.34	0.42
1:AA:2283:C:H5''	1:AA:2389:G:O2'	2.19	0.42
18:ER:66:HIS:CD2	18:ER:94:THR:HG22	2.54	0.42
33:DA:2:A:N6	33:DA:3:A:N1	2.68	0.42
1:AA:2837:A:C2	1:AA:2838:G:C5	3.07	0.42
3:GC:231:HIS:HA	3:GC:241:LYS:HE3	2.01	0.42
5:EE:12:LEU:O	5:EE:13:THR:HB	2.20	0.42
1:EA:68:G:H2'	1:EA:69:C:O4'	2.19	0.42
33:BA:1251:A:H2'	33:BA:1252:A:C8	2.54	0.42
53:FU:25:LYS:HG2	53:FU:26:ALA:H	1.84	0.42
1:GA:1091:G:O2'	31:G4:12:ARG:NH1	2.53	0.42
54:BV:89:THR:HB	54:BV:90:PRO:CD	2.50	0.42
34:BB:57:ASN:ND2	34:BB:219:THR:O	2.52	0.42
15:AO:49:VAL:HG21	15:AO:82:ALA:HA	2.01	0.42
7:GG:126:THR:HG22	7:GG:127:GLN:N	2.33	0.42
1:AA:379:G:C6	1:AA:380:G:C5	3.08	0.42
33:BA:1363:A:O2'	33:BA:1365:G:N7	2.42	0.42
7:EG:27:GLY:HA3	7:EG:78:VAL:HG12	2.01	0.42
33:FA:763:G:H2'	33:FA:764:C:C6	2.55	0.42
33:DA:1519:A:C8	33:DA:1520:C:H1'	2.54	0.42
43:HK:86:VAL:HG21	53:HU:17:ARG:HH22	1.84	0.42
6:EF:37:MET:HG3	6:EF:56:LEU:HD11	2.00	0.42
1:AA:1935:G:H1'	1:AA:1964:G:N2	2.34	0.42
1:GA:1576:U:C2	1:GA:1577:C:C5	3.08	0.42
33:BA:283:U:C4	33:BA:284:C:C4	3.07	0.42
1:CA:2758:A:C2'	1:CA:2759:G:H5'	2.49	0.42
33:BA:1000:A:C2	33:BA:1041:G:C2	3.08	0.42
1:GA:1206:G:C6	1:GA:1207:C:C4	3.07	0.42
1:CA:2243:U:H2'	1:CA:2244:U:C6	2.54	0.42
39:BG:79:ARG:HD2	39:BG:83:SER:O	2.18	0.42
33:HA:293:G:C6	33:HA:294:U:C4	3.08	0.42
34:HB:41:ASN:ND2	34:HB:44:LYS:HB2	2.34	0.42
36:HD:174:ASP:O	36:HD:175:ALA:HB2	2.19	0.42
33:DA:1118:U:O4'	33:DA:1179:A:H1'	2.19	0.42
54:BV:177:GLU:HG2	54:BV:178:HIS:CD2	2.54	0.42
54:BV:360:PHE:CD2	54:BV:363:ILE:HD11	2.54	0.42
33:BA:1118:U:C5'	41:BI:106:ARG:HD2	2.50	0.42
10:AJ:18:VAL:HG22	10:AJ:140:LEU:CD1	2.50	0.42
37:FE:134:ILE:HD12	37:FE:134:ILE:H	1.84	0.42
39:DG:9:GLN:N	39:DG:9:GLN:OE1	2.52	0.42
25:AY:23:ARG:HA	25:AY:23:ARG:HE	1.83	0.42
5:GE:76:PRO:HA	5:GE:82:GLY:HA3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:1290:C:H2'	1:EA:1291:C:C6	2.54	0.42
32:E5:54:VAL:CG2	32:E5:83:ALA:HB1	2.50	0.42
1:AA:1307:A:C5	1:AA:1308:A:C8	3.07	0.42
41:FI:57:MET:SD	41:FI:58:VAL:CA	3.07	0.42
1:CA:996:A:C5	1:CA:1160:G:C2	3.07	0.42
1:AA:954:G:O2'	1:AA:2274:A:N1	2.41	0.42
32:A5:29:ASP:N	32:A5:29:ASP:OD1	2.52	0.42
33:HA:1116:U:C3'	41:HI:110:GLN:HE22	2.33	0.42
1:EA:1676:A:N6	1:EA:1677:A:C6	2.88	0.42
23:EW:23:LYS:CG	23:EW:24:ARG:N	2.83	0.42
33:DA:1143:G:H2'	33:DA:1144:G:H8	1.85	0.42
33:BA:704:A:C5	33:BA:705:G:C5	3.07	0.42
43:BK:86:VAL:HG21	53:BU:17:ARG:NH2	2.34	0.42
9:CI:91:LYS:O	9:CI:135:MET:CE	2.68	0.42
1:EA:2553:G:C2	1:EA:2583:G:H1'	2.54	0.42
1:GA:1784:A:H4'	1:GA:1785:A:O5'	2.19	0.42
23:GW:35:ILE:O	23:GW:36:ILE:C	2.58	0.42
1:CA:2188:U:H2'	1:CA:2189:U:H5'	2.02	0.42
33:BA:779:C:N4	33:BA:780:A:C6	2.88	0.42
45:DM:114:LYS:CB	45:DM:115:PRO:CD	2.97	0.42
36:BD:13:ARG:HG2	36:BD:35:GLU:H	1.85	0.42
18:CR:41:ILE:O	18:CR:46:GLU:HB2	2.19	0.42
33:FA:116:A:H61	33:FA:313:A:H1'	1.84	0.42
33:HA:71:A:C2	33:HA:72:A:C4	3.08	0.42
53:DU:12:PHE:CZ	53:DU:16:LEU:HB2	2.55	0.42
59:HA:1838:HOH:O	37:HE:126:LYS:HD2	2.20	0.42
4:AD:118:PHE:O	4:AD:163:GLY:O	2.38	0.42
23:GW:30:VAL:O	23:GW:30:VAL:HG22	2.19	0.42
44:FL:24:LEU:HG	44:FL:25:GLU:N	2.34	0.42
1:CA:2747:G:O6	1:CA:2755:C:H5''	2.20	0.42
33:BA:59:A:C2	33:BA:354:G:C8	3.08	0.42
1:CA:26:G:C6	1:CA:27:G:N1	2.87	0.42
1:AA:2103:C:C2'	1:AA:2104:C:H5'	2.48	0.42
4:ED:174:SER:O	4:ED:175:LEU:HB2	2.19	0.42
1:AA:301:G:C4	1:AA:302:C:C5	3.08	0.42
1:AA:336:C:OP2	59:AA:3549:HOH:O	2.20	0.42
36:HD:36:GLN:O	36:HD:37:ALA:HB2	2.20	0.42
33:FA:1313:U:H2'	33:FA:1314:C:C6	2.55	0.42
1:CA:528:A:C8	1:CA:528:A:H3'	2.55	0.42
37:BE:114:VAL:HG21	37:BE:141:ILE:HD11	2.02	0.42
52:BT:44:LYS:HB3	52:BT:87:ALA:HA	2.02	0.42
54:HV:586:VAL:HG22	54:HV:587:ASP:H	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:HS:3:ARG:O	51:HS:4:SER:HB2	2.19	0.42
1:EA:594:U:H2'	1:EA:595:C:H6	1.85	0.42
35:BC:144:LEU:HD12	35:BC:144:LEU:O	2.19	0.42
33:BA:676:A:H2'	33:BA:677:U:H6	1.84	0.42
7:AG:84:LYS:CG	7:AG:132:LEU:H	2.32	0.42
9:AI:139:VAL:HG13	9:AI:141:ASP:HB2	2.00	0.42
33:FA:501:C:H2'	33:FA:502:A:C8	2.54	0.42
1:AA:1857:G:C4	1:AA:1884:G:N2	2.88	0.42
33:BA:791:G:O6	33:BA:792:A:N6	2.45	0.42
21:EU:71:ILE:N	21:EU:71:ILE:HD12	2.34	0.42
33:BA:728:A:H2'	33:BA:729:A:C8	2.54	0.42
33:FA:1216:A:H2'	33:FA:1217:C:C6	2.54	0.42
1:EA:1188:U:H4'	18:ER:81:LYS:O	2.20	0.42
1:CA:2340:A:H2'	1:CA:2341:G:H8	1.85	0.42
35:DC:116:VAL:O	35:DC:119:SER:HB3	2.20	0.42
1:CA:2246:G:H1'	1:CA:2426:A:C2	2.53	0.42
22:CV:14:LYS:HG3	22:CV:15:GLY:N	2.34	0.42
48:DP:67:ILE:HG23	48:DP:71:VAL:CG1	2.49	0.42
1:CA:2804:U:H2'	1:CA:2805:C:C6	2.54	0.42
33:DA:925:G:C2	33:DA:927:G:C8	3.08	0.42
1:CA:1970:A:H4'	1:CA:1971:U:OP1	2.19	0.42
52:DT:67:ILE:HG13	52:DT:71:LYS:HD3	2.02	0.42
49:FQ:27:ARG:NH1	49:FQ:29:VAL:HG11	2.34	0.42
41:BI:39:PHE:HB2	41:BI:42:GLU:HB2	2.02	0.42
7:CG:51:PHE:CE1	7:CG:68:ARG:HG2	2.55	0.42
33:DA:195:A:C5	33:DA:196:A:C6	3.08	0.42
46:FN:73:PHE:HE1	46:FN:75:ARG:HA	1.85	0.42
33:FA:672:U:H2'	33:FA:673:A:C8	2.55	0.42
1:AA:2023:C:O2'	1:AA:2618:G:OP1	2.29	0.42
6:AF:39:VAL:HG13	6:AF:40:GLY:N	2.35	0.42
1:EA:1230:A:H2'	1:EA:1231:U:O4'	2.19	0.42
1:AA:422:A:C6	1:AA:423:A:C6	3.08	0.42
51:FS:31:LEU:HD22	51:FS:49:ILE:HG23	2.00	0.42
16:CP:98:TYR:CE2	16:CP:99:LEU:HD13	2.54	0.42
52:FT:5:LYS:NZ	52:FT:7:ALA:HB2	2.34	0.42
1:GA:396:G:H1'	24:GX:28:PHE:HB3	2.02	0.42
1:EA:60:G:O2'	1:EA:62:U:OP2	2.28	0.42
33:BA:414:A:H2'	33:BA:415:A:O4'	2.19	0.42
11:CK:19:VAL:CG1	11:CK:41:ILE:HG13	2.50	0.42
33:HA:1059:C:O2'	42:HJ:53:ILE:O	2.34	0.42
1:AA:934:U:C2	1:AA:935:C:C5	3.08	0.42
1:GA:538:A:H4'	10:GJ:7:LYS:HG2	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1622:G:C2	1:AA:1623:G:C8	3.07	0.42
1:GA:1901:A:H2'	1:GA:1902:C:C6	2.55	0.42
45:DM:12:HIS:HA	45:DM:44:LYS:NZ	2.34	0.42
36:FD:157:ALA:O	36:FD:160:GLU:HB3	2.19	0.42
33:HA:16:A:C2'	33:HA:17:U:H5'	2.50	0.42
33:FA:1005:A:H2'	33:FA:1006:G:O4'	2.19	0.42
33:BA:253:A:OP1	49:BQ:69:LYS:NZ	2.37	0.42
2:EB:58:A:N7	2:EB:59:A:N7	2.68	0.42
1:CA:2814:A:C5	1:CA:2815:C:C5	3.07	0.42
33:BA:533:A:C2	33:BA:536:C:C5	3.08	0.42
1:GA:2771:C:H2'	1:GA:2772:C:C6	2.55	0.42
33:DA:146:G:C2	33:DA:147:G:C4	3.07	0.42
1:GA:2682:A:C8	4:GD:11:MET:CG	3.02	0.42
40:HH:59:LEU:HD21	40:HH:61:LEU:HD21	2.02	0.42
7:GG:86:LEU:HD12	7:GG:130:ILE:HB	2.02	0.42
33:BA:1458:G:H5'	52:BT:27:MET:HB2	2.02	0.42
3:AC:169:ALA:O	3:AC:185:ALA:HB3	2.18	0.42
41:HI:50:GLN:N	41:HI:51:PRO:HD2	2.35	0.42
33:FA:1213:A:C5	33:FA:1215:G:C4	3.07	0.42
1:CA:2207:C:H2'	1:CA:2208:C:H6	1.85	0.42
33:DA:628:G:C2	33:DA:629:A:C4	3.08	0.42
54:DV:691:PRO:HB2	54:DV:694:VAL:HG23	2.01	0.42
33:DA:1264:U:H2'	33:DA:1265:C:C6	2.55	0.42
33:BA:741:G:H2'	33:BA:742:G:H8	1.84	0.42
15:EO:59:ALA:HA	15:EO:62:LEU:HD12	2.01	0.42
33:FA:149:A:C2	33:FA:174:A:C2	3.07	0.42
14:GN:37:THR:OG1	14:GN:40:LYS:HD2	2.20	0.42
1:CA:1713:A:H61	1:CA:1745:A:H61	1.68	0.42
33:DA:734:G:N2	50:DR:64:TYR:CE1	2.86	0.42
1:GA:1231:U:H2'	1:GA:1232:G:H8	1.84	0.42
1:AA:228:C:O2	1:AA:418:C:H4'	2.19	0.42
1:EA:721:A:H2'	1:EA:722:A:C8	2.54	0.42
5:GE:52:VAL:HG12	5:GE:53:THR:N	2.34	0.42
14:GN:52:ILE:O	14:GN:55:ALA:N	2.51	0.42
33:FA:803:G:C6	33:FA:804:U:C4	3.07	0.42
1:CA:2518:A:N3	1:CA:2518:A:H2'	2.34	0.42
35:FC:14:ILE:HD13	35:FC:14:ILE:N	2.35	0.42
38:BF:78:PHE:N	38:BF:78:PHE:CD1	2.88	0.42
47:HO:39:LEU:O	47:HO:42:HIS:N	2.53	0.42
49:FQ:8:LEU:HD22	49:FQ:73:TRP:CH2	2.55	0.42
23:GW:76:ARG:HD3	23:GW:76:ARG:HA	1.88	0.42
32:E5:62:ARG:O	32:E5:65:GLU:N	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2425:A:C5'	1:EA:2427:C:O4'	2.68	0.42
1:CA:1188:U:H4'	18:CR:81:LYS:O	2.20	0.42
1:AA:1416:G:O2'	1:AA:1417:C:H6	2.02	0.42
1:EA:1021:A:C6	1:EA:1023:U:C5	3.07	0.42
1:GA:854:C:H2'	1:GA:855:G:H8	1.85	0.42
43:HK:100:LEU:HG	43:HK:105:PHE:CB	2.50	0.42
16:AP:58:PHE:CD1	16:AP:75:THR:HG22	2.55	0.42
32:A5:81:LEU:C	32:A5:82:ILE:HG12	2.40	0.42
1:GA:2140:G:C8	1:GA:2152:G:N3	2.88	0.42
1:GA:2760:C:C2'	1:GA:2761:A:H5'	2.50	0.42
1:GA:1078:U:O2	1:GA:1088:A:H2'	2.20	0.42
23:CW:39:GLN:HG2	23:CW:40:ARG:N	2.35	0.42
54:HV:632:ILE:HG23	54:HV:642:LEU:HD22	2.01	0.42
45:FM:11:ASP:HA	45:FM:45:ILE:HB	2.01	0.42
9:GI:40:ALA:HB1	9:GI:68:PHE:CD2	2.54	0.42
1:CA:2700:A:C6	59:CA:3674:HOH:O	2.71	0.42
33:HA:42:G:HO2'	33:HA:622:A:H2	1.65	0.42
44:DL:36:ARG:NH1	44:DL:38:TYR:HE1	2.18	0.42
2:AB:86:G:H2'	2:AB:87:U:H5''	2.01	0.42
1:AA:2720:U:OP1	16:AP:52:ARG:NH2	2.53	0.42
33:FA:1276:G:H2'	33:FA:1277:C:O4'	2.20	0.42
54:BV:560:GLN:NE2	54:BV:598:SER:OG	2.52	0.42
1:CA:2437:G:N2	1:CA:2438:U:C2	2.88	0.42
33:FA:983:A:H2'	33:FA:983:A:N3	2.35	0.42
7:GG:84:LYS:HG2	7:GG:85:LYS:N	2.35	0.42
33:HA:1151:A:C2	33:HA:1152:A:C5	3.07	0.42
44:DL:55:VAL:HG21	44:DL:80:ILE:HD11	2.01	0.42
45:HM:60:VAL:CG2	45:HM:65:VAL:HG12	2.49	0.42
33:FA:158:G:C2'	33:FA:159:G:H5'	2.48	0.42
33:BA:1033:G:C2'	33:BA:1034:G:C5'	2.98	0.42
38:BF:38:ARG:CB	38:BF:63:ASN:HB2	2.49	0.42
18:AR:4:VAL:HG23	18:AR:39:LEU:HB2	2.02	0.42
33:FA:1323:G:H2'	33:FA:1324:A:C8	2.54	0.42
33:BA:716:A:C6	33:BA:717:U:C4	3.07	0.42
33:HA:1496:C:H2'	33:HA:1497:G:O4'	2.19	0.42
38:FF:38:ARG:CZ	38:FF:96:VAL:HG23	2.50	0.42
33:HA:35:G:H2'	33:HA:36:C:C6	2.54	0.42
1:AA:1754:A:C6	1:AA:1755:A:C6	3.06	0.42
33:BA:553:A:O2'	44:BL:26:ALA:O	2.37	0.42
3:AC:270:ARG:HG2	3:AC:270:ARG:HH11	1.84	0.42
1:EA:1324:G:C4	1:EA:1328:A:N6	2.87	0.42
17:EQ:86:SER:HB2	18:ER:50:GLY:O	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DH:106:THR:HG22	40:DH:107:SER:N	2.35	0.42
15:AO:77:ALA:HB1	15:AO:81:ARG:NH2	2.34	0.42
5:EE:149:ILE:O	5:EE:188:MET:HA	2.20	0.42
34:DB:86:CYS:C	34:DB:88:GLN:H	2.21	0.42
28:C1:24:LYS:NZ	28:C1:51:ALA:HB1	2.34	0.42
38:DF:64:VAL:HG12	38:DF:65:GLU:H	1.83	0.42
33:BA:592:G:C2	33:BA:593:U:C2	3.08	0.42
1:EA:2556:C:H2'	1:EA:2557:G:O4'	2.20	0.42
34:BB:67:LEU:HD12	34:BB:157:PRO:CG	2.49	0.42
7:EG:39:ALA:HA	7:EG:57:TYR:CE2	2.55	0.42
6:EF:118:ALA:HB2	6:EF:176:PHE:CD1	2.54	0.42
1:EA:861:A:H2'	1:EA:862:G:O4'	2.20	0.42
28:A1:22:THR:OG1	28:A1:23:THR:N	2.50	0.42
16:EP:91:VAL:HG23	16:EP:92:ARG:N	2.35	0.42
1:CA:374:A:C2	1:CA:401:A:C4	3.07	0.42
33:BA:77:A:C2	33:BA:92:U:N3	2.88	0.42
1:CA:2313:C:H5''	6:CF:87:LYS:HD3	2.01	0.42
39:BG:22:LEU:CD1	39:BG:62:PHE:HE2	2.33	0.42
26:CZ:38:GLU:HG3	26:CZ:40:THR:HG22	2.01	0.42
1:CA:1857:G:O2'	1:CA:1858:A:P	2.77	0.42
11:CK:61:VAL:HG21	11:CK:112:PHE:CE1	2.54	0.42
19:AS:17:VAL:C	19:AS:18:ARG:O	2.54	0.42
36:FD:4:TYR:O	36:FD:5:LEU:HB2	2.18	0.42
7:GG:104:LEU:H	7:GG:112:VAL:HG22	1.84	0.42
1:GA:2355:G:H4'	23:GW:20:LEU:HD12	2.01	0.42
45:DM:11:ASP:OD2	45:DM:46:SER:OG	2.37	0.42
33:DA:560:A:H4'	33:DA:561:U:H5''	2.01	0.42
1:AA:1316:U:H2'	1:AA:1317:G:C8	2.54	0.42
35:BC:77:ILE:HA	35:BC:84:VAL:CG2	2.49	0.42
33:HA:1284:C:C5	33:HA:1285:A:C8	3.08	0.42
44:HL:36:ARG:HD3	44:HL:38:TYR:HE1	1.84	0.42
2:CB:94:A:C5	2:CB:95:U:C5	3.08	0.42
33:HA:689:C:OP1	43:HK:46:THR:OG1	2.37	0.42
1:CA:2682:A:C8	4:CD:11:MET:CG	3.03	0.42
28:E1:7:LYS:HA	28:E1:23:THR:HG22	2.01	0.42
33:HA:142:G:N3	33:HA:142:G:H2'	2.34	0.42
6:EF:152:ASP:N	6:EF:152:ASP:OD1	2.53	0.42
1:AA:705:A:C2	1:AA:706:A:C4	3.07	0.42
45:HM:2:ALA:N	45:HM:53:ILE:HD13	2.34	0.42
1:EA:2854:G:H2'	1:EA:2855:C:C6	2.55	0.42
41:HI:30:ILE:CD1	41:HI:79:ILE:CD1	2.98	0.42
1:AA:69:C:H2'	1:AA:70:G:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:HV:193:TRP:CH2	54:HV:276:GLN:HB2	2.55	0.42
33:BA:664:G:N2	33:BA:742:G:C2	2.88	0.42
33:BA:1428:A:H2'	33:BA:1429:A:O4'	2.20	0.42
1:GA:1355:G:C2	1:GA:1356:G:C8	3.08	0.42
1:GA:171:U:H2'	1:GA:172:A:H8	1.85	0.42
33:HA:1343:G:H4'	41:HI:124:ARG:HB3	2.00	0.42
9:EI:74:PRO:HG2	9:EI:77:VAL:HG21	2.01	0.42
1:EA:64:A:H2'	1:EA:65:U:C6	2.55	0.42
1:GA:242:G:H5''	30:G3:63:TYR:CE2	2.54	0.42
1:EA:1585:C:H2'	1:EA:1586:A:O4'	2.20	0.42
3:CC:87:SER:O	3:CC:196:ASN:ND2	2.49	0.42
52:FT:44:LYS:HE2	52:FT:87:ALA:HA	2.02	0.42
7:EG:23:ILE:HG12	7:EG:71:LEU:HD11	2.02	0.42
1:GA:199:A:C8	1:GA:2433:A:N6	2.88	0.42
54:DV:416:ILE:HG12	54:DV:667:ALA:HB3	2.00	0.42
36:BD:146:ARG:NH2	36:BD:148:LYS:HD2	2.34	0.42
33:HA:270:A:H2'	33:HA:271:C:C6	2.55	0.42
36:HD:106:GLY:HA3	36:HD:162:ALA:CB	2.50	0.42
40:BH:105:SER:HB2	40:BH:126:ILE:HD11	2.02	0.42
38:BF:86:ARG:HD2	38:BF:87:SER:N	2.35	0.42
35:FC:47:LEU:HB3	35:FC:50:ALA:HB3	2.01	0.42
35:DC:131:ARG:HD2	35:DC:168:TYR:OH	2.19	0.42
1:CA:582:A:H2'	1:CA:583:G:C8	2.54	0.42
34:HB:18:GLN:HG2	34:HB:189:ASN:OD1	2.20	0.42
33:BA:1112:C:N3	35:BC:178:LEU:HB2	2.34	0.42
1:AA:1764:C:C4	1:AA:1765:U:C5	3.07	0.42
1:EA:1519:G:C5	1:EA:1520:U:C5	3.08	0.42
33:DA:1444:U:H3	33:DA:1458:G:H1	1.68	0.42
33:FA:1055:A:C6	33:FA:1206:G:C5	3.08	0.42
7:GG:14:VAL:HA	7:GG:26:LYS:O	2.19	0.42
34:FB:91:VAL:HG12	34:FB:93:HIS:O	2.19	0.42
1:AA:133:U:H3	1:AA:146:A:H61	1.66	0.42
1:EA:531:C:C5	1:EA:2035:G:C2	3.08	0.42
7:EG:9:VAL:O	7:EG:11:PRO:HD3	2.19	0.42
7:EG:93:TYR:HA	7:EG:105:SER:O	2.20	0.42
43:BK:118:HIS:O	43:BK:119:ASN:HB2	2.20	0.42
1:GA:1428:C:C5	1:GA:1569:A:H5''	2.55	0.42
36:HD:204:TYR:CD1	36:HD:204:TYR:N	2.86	0.42
9:CI:36:GLU:HG3	9:CI:36:GLU:O	2.19	0.42
1:EA:1906:G:C5	1:EA:1929:G:N2	2.88	0.42
33:DA:114:U:O2'	33:DA:115:G:H5'	2.20	0.42
43:FK:125:LYS:CB	53:FU:35:ARG:HG2	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:EJ:41:LYS:C	10:EJ:43:GLU:H	2.23	0.42
1:AA:854:C:H2'	1:AA:855:G:H8	1.84	0.42
1:CA:2103:C:N4	1:CA:2184:A:H2	2.18	0.42
41:BI:28:ILE:HA	41:BI:63:LEU:CD2	2.50	0.42
2:AB:59:A:H4'	15:AO:3:LYS:NZ	2.34	0.42
54:HV:627:ASN:C	54:HV:629:GLY:H	2.23	0.42
3:GC:91:ALA:HB3	3:GC:103:ILE:CG2	2.50	0.42
1:CA:675:A:OP1	5:CE:58:LYS:HE2	2.20	0.42
33:DA:575:G:C5	33:DA:881:G:C2	3.08	0.42
33:DA:1302:C:OP1	33:DA:1302:C:C5	2.73	0.42
9:GI:59:THR:O	9:GI:66:PHE:HB2	2.19	0.42
32:E5:92:ALA:C	32:E5:130:PRO:HG3	2.39	0.42
47:HO:46:HIS:C	47:HO:48:LYS:N	2.72	0.42
1:AA:1783:A:OP1	59:AA:3690:HOH:O	2.21	0.42
33:BA:1151:A:C2	33:BA:1152:A:C5	3.08	0.42
42:FJ:35:GLN:HG3	42:FJ:36:VAL:N	2.34	0.42
1:AA:1288:G:C5	1:AA:1327:A:C2	3.08	0.42
1:GA:1798:U:OP1	3:GC:257:ARG:HB2	2.20	0.42
5:CE:29:HIS:CD2	12:CL:8:PRO:N	2.88	0.42
32:A5:125:ARG:CZ	32:A5:125:ARG:HA	2.50	0.42
16:EP:50:ARG:CG	16:EP:56:SER:HB3	2.50	0.42
9:GI:108:ILE:HG22	9:GI:108:ILE:O	2.20	0.42
6:AF:135:ILE:H	6:AF:140:ILE:HG12	1.85	0.42
7:GG:22:VAL:HG12	7:GG:36:LEU:HD12	2.02	0.42
14:AN:75:ILE:O	14:AN:79:LEU:HD12	2.19	0.42
41:FI:6:TYR:CG	41:FI:89:GLU:HB3	2.55	0.42
35:BC:128:VAL:HG22	35:BC:129:MET:N	2.35	0.42
18:ER:39:LEU:HB3	18:ER:49:ILE:HD13	2.02	0.42
9:AI:123:ALA:HA	9:AI:126:ARG:NH1	2.35	0.42
33:DA:1239:A:H62	33:DA:1299:A:H62	1.67	0.42
1:AA:173:A:C6	1:AA:174:U:C4	3.08	0.42
4:GD:55:LYS:CE	4:GD:60:VAL:HA	2.50	0.42
1:EA:897:C:H2'	1:EA:898:C:C6	2.54	0.42
1:GA:752:A:H62	1:GA:2609:U:H3	1.66	0.42
33:BA:71:A:N6	33:BA:100:G:N7	2.67	0.42
33:BA:72:A:C5	33:BA:73:C:C5	3.08	0.42
3:AC:143:VAL:O	3:AC:151:GLY:HA2	2.19	0.42
9:EI:18:ASN:N	9:EI:19:PRO:HD3	2.35	0.42
54:HV:342:VAL:HG22	54:HV:378:ARG:HD2	2.01	0.42
9:AI:60:VAL:HG22	9:AI:66:PHE:HB3	2.01	0.42
54:FV:227:ALA:HB1	54:FV:234:MET:HB3	2.02	0.42
44:DL:90:LEU:HB3	44:DL:93:VAL:HG21	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:844:G:N2	33:BA:845:A:N3	2.68	0.42
26:CZ:38:GLU:O	26:CZ:43:ILE:HG12	2.20	0.42
2:AB:81:G:C6	2:AB:82:U:C4	3.07	0.42
33:DA:448:A:H3'	33:DA:449:G:H8	1.83	0.42
36:HD:182:PHE:HZ	36:HD:186:PRO:HD3	1.84	0.42
7:GG:23:ILE:HG22	7:GG:24:THR:N	2.35	0.42
54:DV:298:ILE:HG22	54:DV:299:LEU:N	2.34	0.42
33:BA:859:G:H2'	33:BA:860:A:C8	2.54	0.42
42:DJ:61:ALA:O	42:DJ:62:ARG:HB2	2.20	0.42
1:AA:362:A:C5	1:AA:363:G:C8	3.07	0.42
19:GS:24:ILE:HG22	19:GS:71:VAL:HG21	2.02	0.42
33:DA:1451:U:C2'	33:DA:1452:C:OP1	2.67	0.42
1:GA:272:A:HO2'	1:GA:273:G:H8	1.68	0.42
39:HG:4:ARG:O	39:HG:6:VAL:N	2.50	0.42
1:AA:1021:A:N3	1:AA:1021:A:H3'	2.35	0.42
1:CA:2760:C:H2'	1:CA:2761:A:H5'	2.02	0.42
1:AA:2578:G:H2'	1:AA:2579:C:H6	1.83	0.42
14:EN:8:ARG:CB	14:EN:10:LEU:HD22	2.50	0.42
34:BB:40:ILE:HG21	34:BB:201:GLY:HA2	2.01	0.42
1:AA:2888:C:H2'	1:AA:2889:C:H6	1.85	0.42
48:BP:6:LEU:HD13	48:BP:71:VAL:CG2	2.50	0.42
10:EJ:54:ILE:HD12	10:EJ:55:ILE:N	2.35	0.42
33:BA:511:C:C2	33:BA:512:U:C6	3.07	0.42
33:BA:512:U:H2'	33:BA:513:C:C6	2.55	0.42
36:FD:124:MET:HG3	36:FD:146:ARG:HG2	2.02	0.42
36:FD:107:PHE:CD2	36:FD:145:ILE:HG12	2.55	0.42
33:BA:664:G:H22	33:BA:741:G:H1	1.68	0.42
1:AA:1814:G:C6	1:AA:1815:A:C6	3.07	0.42
26:GZ:23:LEU:CD1	26:GZ:50:VAL:HG11	2.50	0.42
10:GJ:36:LEU:O	10:GJ:121:LYS:NZ	2.52	0.42
39:HG:50:LEU:CD1	39:HG:61:ALA:HB1	2.50	0.42
1:GA:2584:U:O4	59:GA:3699:HOH:O	2.22	0.42
1:CA:1989:G:H2'	1:CA:1990:C:O4'	2.20	0.42
1:CA:155:A:H2'	1:CA:156:A:C8	2.54	0.42
1:GA:1372:U:O2'	1:GA:2212:A:N3	2.44	0.42
52:DT:85:LYS:O	52:DT:86:LEU:HB2	2.19	0.42
9:EI:91:LYS:HB2	9:EI:95:ASP:HB3	2.02	0.42
8:CH:37:VAL:HG23	8:CH:38:PRO:HD2	2.02	0.42
33:HA:31:G:H5'	33:HA:306:A:C2	2.54	0.42
1:GA:659:G:H4'	5:GE:95:LYS:HD3	2.02	0.42
52:FT:59:ASP:OD1	52:FT:76:LYS:NZ	2.51	0.42
54:DV:75:MET:HE1	54:DV:202:PHE:HZ	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:694:U:C2	1:EA:695:G:C8	3.08	0.42
3:GC:129:LEU:O	3:GC:134:ILE:HD11	2.19	0.42
49:HQ:65:ARG:HG3	49:HQ:66:PRO:HD2	2.02	0.42
34:DB:89:PHE:HB3	34:DB:149:GLY:O	2.20	0.42
33:DA:688:G:N3	33:DA:704:A:C2	2.87	0.42
1:GA:2233:U:H2'	1:GA:2234:G:C8	2.54	0.42
41:HI:20:PHE:CD2	41:HI:64:TYR:HD2	2.37	0.42
7:CG:101:VAL:HG12	7:CG:115:GLN:HA	2.01	0.42
1:GA:1770:G:C5	1:GA:1983:G:C6	3.07	0.42
33:HA:1233:G:H2'	33:HA:1234:C:C6	2.54	0.42
33:DA:28:A:H2'	33:DA:29:U:O4'	2.19	0.42
11:GK:38:ILE:HD11	11:GK:112:PHE:HZ	1.84	0.42
31:A4:22:VAL:HG12	31:A4:24:ARG:HG3	2.01	0.42
1:CA:2869:G:H2'	1:CA:2870:C:O4'	2.20	0.42
1:EA:15:G:C6	1:EA:16:C:C4	3.08	0.42
53:HU:49:LYS:C	53:HU:51:SER:N	2.73	0.42
33:HA:1216:A:H2'	33:HA:1217:C:H6	1.84	0.42
1:GA:1430:G:H2'	1:GA:1431:A:O4'	2.20	0.42
14:GN:100:CYS:SG	14:GN:110:MET:HB3	2.60	0.42
38:FF:6:ILE:HD11	38:FF:71:ILE:HD13	2.01	0.42
1:GA:2086:U:H2'	1:GA:2087:G:C8	2.55	0.42
1:AA:2355:G:H4'	23:AW:20:LEU:HD12	2.01	0.42
1:AA:1831:G:C4	1:AA:1975:G:N2	2.87	0.42
4:CD:182:ALA:O	4:CD:184:ARG:N	2.53	0.42
17:GQ:26:ALA:HA	17:GQ:30:VAL:HG23	2.02	0.42
1:CA:682:G:H5'	29:C2:26:ASN:ND2	2.35	0.42
8:EH:15:LEU:N	8:EH:15:LEU:HD22	2.34	0.42
1:CA:2751:G:N3	1:CA:2751:G:H2'	2.34	0.42
7:CG:168:VAL:O	7:CG:168:VAL:HG23	2.19	0.42
1:EA:560:C:O2	17:EQ:47:ARG:NH1	2.52	0.42
2:GB:42:C:C5	6:GF:65:LEU:HD22	2.55	0.42
32:A5:23:LEU:HG	32:A5:24:SER:N	2.34	0.42
32:E5:77:VAL:C	32:E5:79:PRO:HD2	2.40	0.42
33:BA:1223:C:P	51:BS:78:ARG:NH1	2.93	0.42
6:AF:124:ARG:HA	6:AF:160:LYS:O	2.19	0.42
33:HA:1035:A:C8	33:HA:1036:A:C8	3.07	0.42
41:DI:57:MET:HE2	41:DI:57:MET:HB2	1.97	0.42
32:A5:55:VAL:HG12	32:A5:57:ASN:HD21	1.85	0.42
33:BA:687:A:H2	33:BA:704:A:C5	2.38	0.42
33:BA:705:G:C5	33:BA:706:A:C8	3.07	0.42
1:AA:279:A:N7	1:AA:361:G:C2	2.87	0.42
37:FE:80:THR:OG1	37:FE:81:LEU:N	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:95:LEU:HD11	12:AL:125:LEU:HD11	2.02	0.42
1:GA:572:A:H5'	1:GA:573:U:OP2	2.20	0.42
9:GL:29:GLN:HE22	54:HV:652:VAL:CG2	2.32	0.42
33:HA:858:G:O2'	33:HA:859:G:H5'	2.20	0.42
33:HA:858:G:C2'	33:HA:859:G:H5'	2.49	0.42
6:AF:24:VAL:O	6:AF:27:VAL:CG1	2.67	0.42
44:DL:54:ARG:HA	44:DL:64:THR:HA	2.01	0.42
1:GA:565:C:H2'	1:GA:566:U:O4'	2.20	0.42
33:FA:1008:U:H2'	33:FA:1009:U:O4'	2.20	0.42
43:BK:109:ASN:ND2	53:BU:7:ARG:HG2	2.35	0.42
23:GW:49:ASN:HB3	23:GW:81:ILE:CD1	2.50	0.42
33:HA:1469:C:H2'	33:HA:1470:U:C5'	2.50	0.42
1:GA:1654:A:O2'	4:GD:118:PHE:CB	2.68	0.42
16:CP:59:THR:OG1	16:CP:72:VAL:HG12	2.19	0.42
6:GF:105:ILE:HD13	6:GF:138:PRO:HG2	2.02	0.42
4:CD:120:GLY:HA2	4:CD:162:ALA:HA	2.00	0.42
19:CS:32:ALA:O	19:CS:36:LEU:HD12	2.20	0.42
6:GF:148:VAL:HG23	6:GF:149:ARG:H	1.85	0.42
33:FA:91:U:H2'	33:FA:92:U:C6	2.55	0.42
54:DV:342:VAL:HG22	54:DV:378:ARG:HD2	2.01	0.42
2:AB:35:C:H2'	2:AB:36:C:O4'	2.20	0.42
33:HA:1323:G:C6	33:HA:1324:A:N6	2.88	0.42
35:BC:17:PRO:O	35:BC:18:TRP:CE3	2.73	0.42
7:CG:83:THR:HA	7:CG:84:LYS:CE	2.49	0.42
33:BA:72:A:H2'	33:BA:73:C:H5'	2.02	0.42
53:BU:25:LYS:HG2	53:BU:26:ALA:H	1.84	0.42
34:BB:67:LEU:HD22	34:BB:69:VAL:HG13	2.01	0.42
1:CA:323:C:C4	1:CA:333:G:C8	3.08	0.42
21:GU:100:GLU:O	21:GU:101:THR:HB	2.20	0.42
1:CA:2304:G:H22	1:CA:2312:U:H3	1.67	0.42
1:GA:1084:A:N6	1:GA:1085:A:N1	2.67	0.42
33:BA:1295:U:H2'	33:BA:1296:C:C6	2.55	0.42
33:BA:1302:C:O2	45:BM:17:ILE:CD1	2.68	0.42
37:BE:155:ALA:HB1	40:BH:66:PHE:CE1	2.55	0.42
36:BD:170:TRP:HA	36:BD:184:ARG:NE	2.35	0.42
36:HD:87:GLY:HA2	36:HD:201:VAL:HG21	2.01	0.42
1:EA:586:A:C2	1:EA:1254:A:C2	3.08	0.42
54:HV:4:THR:HG21	54:HV:378:ARG:HG3	2.01	0.42
46:BN:17:ALA:HA	46:BN:55:SER:O	2.19	0.42
33:FA:789:U:O2	33:FA:791:G:C8	2.73	0.42
1:EA:1796:U:H2'	1:EA:1797:G:C8	2.53	0.42
6:GF:1:ALA:HB1	6:GF:97:GLU:HG3	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:224:U:H2'	33:FA:225:C:C6	2.55	0.42
25:EY:5:GLU:O	25:EY:8:GLU:HB2	2.20	0.42
20:CT:15:HIS:O	20:CT:17:SER:N	2.52	0.42
1:AA:2794:C:H42	1:AA:2802:G:H1	1.66	0.42
15:CO:79:ALA:HA	15:CO:115:LEU:HD22	2.01	0.42
6:AF:103:ILE:HG21	6:AF:173:ASP:HB3	2.01	0.42
36:DD:98:LEU:CD1	36:DD:130:VAL:HG11	2.50	0.42
1:GA:2773:C:H2'	1:GA:2774:C:H6	1.84	0.42
41:HI:129:LYS:CG	41:HI:130:ARG:H	2.31	0.42
1:CA:1001:A:C8	1:CA:1002:G:C8	3.08	0.42
1:GA:364:C:H2'	1:GA:365:U:C6	2.54	0.42
33:DA:165:G:H2'	33:DA:166:U:C6	2.55	0.42
1:AA:1495:A:C6	1:AA:1496:A:C6	3.08	0.42
21:CU:95:PHE:N	21:CU:95:PHE:CD1	2.86	0.42
1:EA:2637:U:H2'	1:EA:2638:G:H5'	2.01	0.42
1:CA:744:U:C4	1:CA:745:G:C5	3.08	0.42
18:AR:89:HIS:NE2	18:AR:91:GLN:HB2	2.35	0.42
1:CA:2544:G:H8	1:CA:2544:G:O5'	2.02	0.42
28:C1:22:THR:OG1	28:C1:23:THR:N	2.51	0.42
34:FB:71:THR:HG22	34:FB:72:LYS:H	1.84	0.42
1:AA:681:G:H2'	1:AA:682:G:O4'	2.20	0.42
1:AA:1400:U:H2'	1:AA:1401:G:C8	2.55	0.42
33:DA:1314:C:O2'	33:DA:1315:U:H5'	2.20	0.42
19:ES:13:SER:O	19:ES:14:ALA:HB2	2.19	0.42
1:CA:1519:G:H2'	1:CA:1520:U:O4'	2.19	0.42
35:BC:153:VAL:HG23	35:BC:157:LEU:HD21	2.01	0.42
54:FV:523:TYR:CE2	54:FV:525:LEU:HD11	2.55	0.42
39:HG:46:ALA:O	39:HG:50:LEU:HB2	2.19	0.42
4:CD:182:ALA:C	4:CD:184:ARG:N	2.73	0.42
25:GY:51:ALA:O	25:GY:55:THR:N	2.49	0.42
1:CA:692:C:C2	1:CA:771:G:C2	3.08	0.42
33:BA:1347:G:C8	41:BI:109:ARG:HB3	2.54	0.42
39:FG:89:VAL:HG22	39:FG:90:GLU:N	2.35	0.42
3:CC:216:ARG:HB3	3:CC:217:PRO:HD2	2.01	0.42
1:GA:1097:U:C5	1:GA:1098:A:C8	3.08	0.42
1:CA:2823:A:C5	1:CA:2824:C:C5	3.08	0.42
1:EA:2461:A:H1'	1:EA:2492:U:C2	2.54	0.42
11:GK:34:GLY:O	11:GK:36:GLY:N	2.53	0.42
7:GG:88:LEU:HD23	7:GG:88:LEU:N	2.34	0.42
1:GA:1381:G:H2'	1:GA:1382:G:H5'	2.01	0.42
18:GR:64:VAL:O	18:GR:65:ALA:HB3	2.20	0.42
38:DF:3:HIS:CD2	38:DF:94:HIS:HA	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:61:G:C6	2:CB:62:C:C4	3.07	0.42
1:EA:416:U:H2'	1:EA:417:C:C6	2.55	0.42
33:DA:432:A:H2'	33:DA:433:G:O4'	2.20	0.42
38:HF:98:GLU:HG3	38:HF:99:ALA:N	2.35	0.42
1:EA:1602:U:OP2	20:ET:64:LYS:HE3	2.20	0.42
33:FA:875:U:O2'	40:FH:15:ARG:NH1	2.50	0.42
1:CA:191:A:H2'	1:CA:192:C:C6	2.54	0.42
47:DO:25:THR:HG21	47:DO:70:LEU:HG	2.01	0.42
33:HA:1057:G:O3'	35:HC:197:GLY:HA3	2.20	0.42
1:CA:1739:A:H2'	1:CA:1740:G:O4'	2.20	0.42
12:CL:29:LYS:HG2	12:CL:30:THR:HG23	2.01	0.42
1:EA:2002:G:C6	1:EA:2003:A:N7	2.87	0.42
1:GA:626:A:C2	12:GL:78:ARG:HD3	2.55	0.42
35:DC:173:VAL:HG12	35:DC:175:LEU:HD13	2.01	0.42
12:GL:92:LEU:HD21	12:GL:124:GLY:HA3	2.01	0.42
13:GM:108:VAL:HG13	13:GM:112:LEU:HB3	2.01	0.42
3:AC:216:ARG:HB3	3:AC:217:PRO:HD2	2.01	0.42
1:CA:1851:U:C4	1:CA:1852:U:C4	3.08	0.42
53:FU:20:LYS:N	53:FU:20:LYS:HE2	2.35	0.42
34:BB:9:LEU:O	34:BB:9:LEU:HD23	2.20	0.42
4:GD:47:ALA:HA	4:GD:84:LEU:HG	2.01	0.42
1:AA:1166:G:H2'	1:AA:1167:C:C6	2.54	0.42
1:CA:2432:A:N6	1:CA:2433:A:N6	2.67	0.42
1:GA:2741:A:H2'	1:GA:2742:G:O4'	2.20	0.42
1:CA:404:A:H1'	1:CA:405:U:OP2	2.20	0.42
1:CA:2075:U:C4	1:CA:2238:G:C6	3.08	0.42
10:GJ:45:THR:HG23	10:GJ:45:THR:O	2.19	0.42
17:GQ:57:ARG:NH1	17:GQ:61:ILE:HD11	2.35	0.42
17:GQ:60:TRP:O	17:GQ:63:ARG:HG3	2.19	0.42
9:AI:93:ASN:HA	9:AI:135:MET:CE	2.50	0.42
1:EA:994:C:H1'	18:ER:10:LYS:HE2	2.01	0.42
43:HK:125:LYS:HZ1	53:HU:36:GLU:H	1.68	0.42
10:AJ:110:PRO:HB2	10:AJ:111:LYS:HG3	2.01	0.42
41:BI:18:ARG:HE	41:BI:66:THR:HB	1.84	0.42
1:EA:2336:A:N6	23:EW:40:ARG:HG2	2.35	0.42
1:CA:2884:U:H4'	27:C0:49:ARG:NH2	2.35	0.42
33:DA:1492:A:H2'	33:DA:1493:A:C5'	2.50	0.42
55:DW:2:DPP:HA	55:DW:6:5OH:O	2.20	0.42
1:AA:277:G:O2'	1:AA:278:A:OP2	2.30	0.42
1:GA:1926:U:H2'	1:GA:1927:A:N7	2.34	0.42
42:DJ:80:THR:HB	42:DJ:83:THR:H	1.84	0.42
1:AA:2336:A:N6	23:AW:40:ARG:HB2	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:FB:140:LEU:HA	34:FB:143:LEU:HD23	2.02	0.42
45:BM:45:ILE:N	45:BM:45:ILE:HD12	2.35	0.42
1:GA:564:C:C4	1:GA:565:C:C5	3.08	0.42
30:G3:51:LYS:HA	30:G3:54:LEU:HD22	2.01	0.42
33:FA:263:A:OP2	52:FT:74:ARG:NH1	2.53	0.42
1:GA:822:G:H2'	1:GA:823:C:H6	1.84	0.42
1:CA:450:G:OP2	59:CA:3239:HOH:O	2.22	0.42
6:CF:64:PRO:HA	6:CF:88:VAL:CG2	2.49	0.42
9:GI:85:ILE:N	9:GI:85:ILE:HD12	2.34	0.42
17:AQ:4:LYS:HD2	17:AQ:7:VAL:HG12	2.02	0.42
1:AA:160:A:C8	1:AA:167:A:C6	3.08	0.42
1:CA:1654:A:O2'	4:CD:118:PHE:CB	2.68	0.42
33:BA:438:U:H4'	36:BD:120:HIS:ND1	2.35	0.42
6:EF:147:ARG:HG3	6:EF:149:ARG:H	1.85	0.42
53:BU:44:GLU:HG2	53:BU:47:ARG:NH1	2.34	0.42
1:AA:1728:C:O2	1:AA:1731:G:C2	2.73	0.42
1:AA:2210:U:H4'	1:AA:2211:A:C5'	2.47	0.42
40:HH:106:THR:HG22	40:HH:108:LYS:H	1.85	0.42
1:AA:2019:A:H4'	17:AQ:33:VAL:HG21	2.02	0.42
41:DI:55:VAL:HG13	41:DI:94:LEU:HD22	2.02	0.42
50:BR:35:GLU:HB2	53:BU:19:PHE:CE2	2.54	0.42
2:CB:116:G:H2'	2:CB:117:G:C8	2.55	0.42
33:DA:135:C:H2'	33:DA:136:C:H5'	2.01	0.42
34:DB:79:VAL:HA	34:DB:213:LEU:HD21	2.02	0.42
11:CK:20:MET:CE	11:CK:44:LYS:HE3	2.50	0.42
1:CA:1054:A:C4	1:CA:1055:G:C8	3.08	0.42
1:EA:320:A:OP1	5:EE:130:LYS:HE3	2.19	0.42
34:BB:67:LEU:HB3	34:BB:160:LEU:HD12	2.01	0.42
20:ET:54:GLU:HG3	20:ET:88:LYS:N	2.35	0.42
32:A5:15:VAL:HG12	32:A5:15:VAL:O	2.19	0.42
1:CA:871:U:H4'	13:CM:68:PHE:CE2	2.55	0.42
3:AC:16:VAL:HG23	3:AC:203:VAL:HG11	2.01	0.42
33:BA:77:A:N7	33:BA:79:G:C4	2.88	0.42
33:BA:77:A:N7	33:BA:79:G:N3	2.68	0.42
42:BJ:25:ILE:CG2	42:BJ:74:VAL:HG11	2.49	0.42
33:FA:1039:G:C5	33:FA:1040:U:C5	3.07	0.42
1:AA:613:A:O2'	1:AA:614:A:OP1	2.29	0.42
5:CE:146:VAL:HG23	5:CE:167:VAL:HG13	2.02	0.42
10:CJ:74:TYR:HE1	10:CJ:103:ILE:HD11	1.84	0.42
12:EL:19:LEU:HD23	12:EL:19:LEU:C	2.41	0.42
36:BD:174:ASP:O	36:BD:175:ALA:HB2	2.19	0.42
33:HA:1264:U:H2'	33:HA:1265:C:H6	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1745:A:H2'	1:GA:1746:A:O4'	2.20	0.42
1:GA:2286:G:H5''	1:GA:2287:A:O4'	2.20	0.42
35:BC:88:ARG:HB2	35:BC:101:ILE:CG2	2.50	0.42
35:DC:70:THR:C	35:DC:106:VAL:HG22	2.40	0.42
1:GA:1283:G:N2	1:GA:1329:U:O4	2.52	0.42
54:DV:30:ILE:O	54:DV:34:THR:HG22	2.20	0.42
4:CD:70:LYS:O	4:CD:71:ALA:HB3	2.20	0.42
46:BN:42:TRP:O	46:BN:45:VAL:HG22	2.20	0.42
28:G1:7:LYS:HE3	30:G3:33:THR:CG2	2.49	0.42
1:AA:724:U:H2'	1:AA:725:G:O4'	2.19	0.42
20:AT:40:LYS:O	20:AT:44:LYS:N	2.49	0.42
20:AT:10:VAL:HG21	20:AT:43:ILE:HA	2.01	0.42
6:CF:107:VAL:N	6:CF:108:PRO:CD	2.83	0.42
1:GA:65:U:H2'	1:GA:66:C:H6	1.85	0.42
33:DA:1306:A:C5	33:DA:1307:U:C5	3.08	0.42
33:HA:1171:A:H2'	33:HA:1172:C:C6	2.54	0.42
1:CA:1084:A:N3	1:CA:1105:U:O2'	2.47	0.42
54:HV:227:ALA:HB1	54:HV:234:MET:HB2	2.01	0.42
4:ED:193:VAL:HB	4:ED:194:PRO:HD2	2.02	0.42
11:AK:107:LEU:O	11:AK:109:SER:N	2.45	0.42
1:CA:1594:U:H2'	1:CA:1595:C:C6	2.54	0.42
33:HA:270:A:C5	33:HA:271:C:C4	3.07	0.42
19:ES:4:ILE:HG13	19:ES:5:ALA:N	2.34	0.42
54:HV:218:TRP:N	54:HV:218:TRP:CD1	2.86	0.42
51:FS:44:MET:HA	51:FS:47:LEU:HD12	2.01	0.42
1:EA:1199:U:H2'	1:EA:1200:C:C6	2.55	0.42
1:CA:2728:U:O2'	1:CA:2729:G:OP2	2.33	0.42
54:FV:354:LYS:HE2	54:FV:395:ASP:OD2	2.20	0.42
1:AA:464:U:H5'	29:A2:5:PHE:CD1	2.54	0.42
10:AJ:35:ARG:HA	10:AJ:40:HIS:CE1	2.55	0.42
28:A1:10:LEU:HB2	28:A1:20:TYR:HB2	2.02	0.42
1:AA:2307:G:H4'	1:AA:2308:G:C5'	2.50	0.42
3:AC:20:ASN:OD1	3:AC:22:GLU:HG2	2.19	0.42
33:BA:639:G:C2	33:BA:640:A:C8	3.07	0.42
46:FN:26:GLU:CG	46:FN:27:LEU:HD12	2.50	0.42
19:GS:17:VAL:HG11	19:GS:103:ILE:HG12	2.02	0.42
10:EJ:88:THR:HG23	10:EJ:91:GLU:H	1.84	0.42
33:BA:103:U:O4	59:BA:1870:HOH:O	2.21	0.42
39:FG:27:VAL:HG12	39:FG:43:VAL:HG21	2.02	0.42
46:HN:9:ARG:O	46:HN:13:ARG:HG3	2.19	0.42
1:AA:1865:U:C5	1:AA:1875:G:C2	3.08	0.42
13:AM:41:LEU:HD12	13:AM:96:ILE:HG21	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DD:147:GLU:HA	36:DD:150:LYS:HD2	2.02	0.42
34:HB:52:ALA:O	34:HB:56:LEU:HB2	2.20	0.42
21:CU:21:ARG:CZ	21:CU:72:PHE:CE2	3.02	0.42
22:EV:80:HIS:HD2	22:EV:83:LYS:H	1.66	0.42
1:AA:2438:U:O2'	1:AA:2439:A:H5''	2.20	0.42
23:AW:67:LYS:HG3	23:AW:69:GLU:HG3	2.00	0.42
23:AW:67:LYS:O	23:AW:68:PHE:HB2	2.19	0.42
1:GA:2276:G:OP2	13:GM:85:GLY:N	2.50	0.42
14:GN:87:PHE:CE1	14:GN:116:VAL:HG12	2.55	0.42
43:BK:52:PHE:CD1	43:BK:52:PHE:N	2.87	0.42
3:GC:123:ILE:O	3:GC:123:ILE:HG13	2.19	0.42
15:AO:59:ALA:HA	15:AO:62:LEU:HD12	2.01	0.42
14:CN:33:ILE:HD11	27:C0:54:ILE:CD1	2.50	0.42
12:GL:96:LYS:HD3	12:GL:103:ILE:HA	2.00	0.42
17:GQ:94:LEU:C	17:GQ:96:ASP:H	2.22	0.41
10:EJ:44:TYR:CZ	17:EQ:59:LEU:HD11	2.54	0.41
33:HA:946:A:O2'	33:HA:1333:A:O2'	1.95	0.41
54:DV:219:HIS:C	54:DV:221:ASN:N	2.73	0.41
1:GA:782:A:C2	3:GC:224:MET:SD	3.13	0.41
1:EA:855:G:H21	23:EW:23:LYS:CG	2.33	0.41
1:EA:2365:G:H4'	23:EW:59:PHE:CE1	2.55	0.41
41:DI:18:ARG:HG3	41:DI:66:THR:HB	2.02	0.41
1:EA:137:U:O2'	1:EA:138:U:P	2.77	0.41
1:CA:2136:G:H22	1:CA:2156:G:H5''	1.85	0.41
36:DD:13:ARG:HG2	36:DD:35:GLU:H	1.85	0.41
1:AA:799:G:N1	1:AA:800:A:N6	2.68	0.41
43:BK:31:ILE:HB	43:BK:46:THR:HG22	2.02	0.41
43:BK:40:ASN:O	43:BK:41:ALA:O	2.38	0.41
33:HA:981:U:H5	33:HA:982:U:HO2'	1.63	0.41
1:CA:2588:G:OP1	59:CA:3314:HOH:O	2.21	0.41
1:AA:830:G:C4	1:AA:2448:A:C5	3.09	0.41
37:FE:81:LEU:CD2	37:FE:123:VAL:HG12	2.50	0.41
1:GA:2024:G:C4	1:GA:2040:G:N2	2.88	0.41
23:AW:39:GLN:HG3	23:AW:42:THR:H	1.85	0.41
46:HN:26:GLU:HG3	46:HN:27:LEU:HD12	2.02	0.41
36:HD:105:MET:HG2	36:HD:171:LEU:HD13	2.01	0.41
1:AA:2313:C:N4	59:AA:3518:HOH:O	2.51	0.41
32:E5:43:LYS:O	32:E5:47:GLU:HB2	2.20	0.41
33:BA:1149:C:OP2	41:BI:11:ARG:NH1	2.53	0.41
44:BL:34:CYS:SG	44:BL:78:SER:HB2	2.60	0.41
1:CA:558:U:O3'	10:CJ:111:LYS:HE3	2.20	0.41
33:FA:264:C:H4'	49:FQ:65:ARG:HD2	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2436:G:C2	1:CA:2437:G:C8	3.08	0.41
1:CA:685:A:C2	1:CA:689:A:C6	3.08	0.41
5:GE:149:ILE:HG23	5:GE:188:MET:HG3	2.02	0.41
10:EJ:81:ILE:HG12	10:EJ:82:GLY:N	2.35	0.41
9:GI:100:ILE:O	9:GI:140:GLU:HG2	2.20	0.41
33:DA:429:U:H1'	33:DA:430:A:H5''	2.02	0.41
24:GX:39:VAL:HG21	24:GX:42:GLU:HB2	2.01	0.41
6:AF:101:ARG:O	6:AF:137:PHE:CE2	2.73	0.41
9:AI:80:LYS:HG3	9:AI:86:LYS:CG	2.50	0.41
9:CI:71:LYS:HB3	9:CI:71:LYS:NZ	2.34	0.41
37:BE:16:ILE:HD11	37:BE:38:VAL:HG21	2.01	0.41
1:CA:2425:A:C5'	1:CA:2427:C:O4'	2.68	0.41
43:HK:55:SER:HA	43:HK:57:LYS:NZ	2.34	0.41
1:CA:1268:A:C6	1:CA:2013:A:C8	3.07	0.41
1:GA:2108:A:C4	1:GA:2182:U:O2	2.73	0.41
49:FQ:59:VAL:CG2	49:FQ:75:LEU:HD13	2.49	0.41
1:AA:170:U:H2'	1:AA:171:U:H6	1.85	0.41
33:BA:880:C:P	44:BL:5:ASN:HD22	2.43	0.41
33:BA:677:U:C4	33:BA:678:U:C5	3.08	0.41
27:A0:3:GLN:OE1	27:A0:7:PRO:HD3	2.20	0.41
1:EA:481:G:C2	1:EA:507:A:C4	3.08	0.41
1:GA:2787:C:H2'	1:GA:2788:C:C6	2.55	0.41
1:GA:966:G:C6	1:GA:967:U:C4	3.08	0.41
42:FJ:10:LEU:HD11	42:FJ:25:ILE:HD12	2.01	0.41
11:CK:64:ARG:HG2	11:CK:79:PHE:CE2	2.55	0.41
36:DD:48:LEU:CD2	36:DD:53:VAL:HG12	2.49	0.41
3:AC:14:HIS:O	3:AC:203:VAL:HG11	2.19	0.41
1:GA:1473:G:H2'	1:GA:1474:U:O4'	2.20	0.41
54:HV:4:THR:HG22	54:HV:378:ARG:HG3	2.02	0.41
1:CA:56:A:C6	1:CA:57:C:C4	3.07	0.41
40:FH:10:MET:HE1	40:FH:33:LYS:HA	2.02	0.41
2:CB:78:A:N6	2:CB:98:G:O2'	2.49	0.41
7:EG:162:ARG:HD3	7:EG:166:GLU:HG2	2.01	0.41
19:AS:54:ALA:HB1	19:AS:107:VAL:HG12	2.02	0.41
1:AA:545:U:O5'	1:AA:545:U:H6	2.03	0.41
39:DG:70:ARG:CG	39:DG:96:ARG:HD3	2.50	0.41
33:BA:109:A:C4	33:BA:327:A:C2	3.08	0.41
11:AK:80:ASP:OD2	16:AP:61:ARG:NH1	2.53	0.41
10:AJ:88:THR:HG22	10:AJ:91:GLU:CG	2.50	0.41
1:EA:221:A:N1	1:EA:265:A:O2'	2.46	0.41
33:BA:653:U:H5'	40:BH:56:LYS:HE2	2.01	0.41
35:FC:123:GLN:O	35:FC:128:VAL:HG13	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FL:87:VAL:C	44:FL:89:ASP:H	2.23	0.41
1:AA:1291:C:H4'	1:AA:1537:G:P	2.60	0.41
52:HT:28:MET:O	52:HT:32:ILE:HG13	2.20	0.41
1:GA:2637:U:C2'	1:GA:2638:G:H5'	2.50	0.41
36:DD:174:ASP:O	36:DD:175:ALA:CB	2.68	0.41
1:EA:1935:G:H1'	1:EA:1964:G:N2	2.35	0.41
1:CA:1062:G:C6	1:CA:1077:A:N1	2.88	0.41
40:BH:102:ALA:HB3	40:BH:113:ASP:HB3	2.02	0.41
33:DA:434:U:H2'	33:DA:435:A:H8	1.85	0.41
33:DA:436:C:N3	33:DA:437:U:C5	2.88	0.41
1:AA:704:G:N2	1:AA:726:G:C4	2.88	0.41
1:EA:2393:U:H5''	12:EL:62:PRO:HB3	2.02	0.41
28:E1:39:ASP:OD1	28:E1:41:VAL:HG22	2.19	0.41
21:GU:78:LYS:CG	21:GU:79:ALA:N	2.83	0.41
1:CA:1060:U:H4'	1:CA:1061:U:C5'	2.50	0.41
33:DA:857:C:H2'	33:DA:858:G:O4'	2.20	0.41
2:CB:64:G:H2'	2:CB:65:U:C6	2.54	0.41
53:HU:14:VAL:CG2	53:HU:16:LEU:HG	2.50	0.41
1:CA:1867:G:C2'	1:CA:1868:C:H5'	2.49	0.41
1:EA:2507:C:C2	1:EA:2508:G:C8	3.08	0.41
11:GK:71:ARG:HG2	11:GK:105:ARG:HH21	1.84	0.41
1:AA:1401:G:C6	1:AA:1402:U:C4	3.08	0.41
36:DD:23:SER:HB2	36:DD:110:THR:HG22	2.02	0.41
1:GA:171:U:H2'	1:GA:172:A:C8	2.55	0.41
1:EA:2461:A:H2'	1:EA:2462:C:C6	2.55	0.41
7:GG:88:LEU:HD11	7:GG:95:ALA:HB2	2.02	0.41
52:FT:22:ALA:O	52:FT:26:SER:N	2.49	0.41
33:DA:1060:U:C4	35:DC:2:GLY:N	2.88	0.41
16:AP:105:LYS:HA	16:AP:108:ARG:HD2	2.02	0.41
16:AP:105:LYS:O	16:AP:108:ARG:HD3	2.20	0.41
51:FS:40:ILE:HD11	51:FS:71:LEU:HD23	2.02	0.41
33:BA:619:U:H3	36:BD:131:ASN:HB3	1.85	0.41
1:CA:796:C:H2'	1:CA:797:G:C8	2.55	0.41
36:HD:85:ASN:HA	37:HE:102:GLY:HA2	2.02	0.41
51:HS:15:LEU:HD13	51:HS:33:THR:HG21	2.02	0.41
1:EA:73:A:OP1	25:EY:47:ARG:HD2	2.20	0.41
21:AU:12:VAL:HA	21:AU:69:VAL:HG12	2.02	0.41
4:CD:78:GLY:C	4:CD:79:LEU:HD12	2.40	0.41
19:GS:45:VAL:CG2	19:GS:46:LEU:N	2.83	0.41
27:A0:38:LEU:HB2	27:A0:41:HIS:HB2	2.00	0.41
1:CA:622:G:OP2	59:CA:3795:HOH:O	2.22	0.41
13:GM:23:GLY:O	13:GM:101:VAL:HG12	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:1088:G:H21	33:FA:1167:A:N6	2.18	0.41
51:HS:41:PHE:HB3	51:HS:42:PRO:HD2	2.02	0.41
1:EA:2081:U:H2'	1:EA:2082:A:C8	2.55	0.41
1:EA:2786:U:H4'	4:ED:66:GLY:O	2.20	0.41
1:CA:722:A:H2'	1:CA:723:C:C6	2.55	0.41
20:GT:57:VAL:HG22	20:GT:58:VAL:N	2.35	0.41
33:FA:139:A:H2'	33:FA:140:U:H6	1.84	0.41
47:DO:64:ARG:NH2	47:DO:88:ARG:HD3	2.35	0.41
33:BA:53:A:C2	33:BA:54:C:H1'	2.55	0.41
33:HA:938:A:C6	33:HA:939:G:C5	3.08	0.41
54:HV:20:ASP:O	54:HV:21:ALA:HB3	2.20	0.41
40:HH:80:ARG:HH21	40:HH:83:LEU:CB	2.33	0.41
35:FC:70:THR:HG22	35:FC:72:ARG:H	1.84	0.41
1:EA:2591:C:OP1	3:EC:237:ARG:HG3	2.19	0.41
33:FA:1246:A:H2'	33:FA:1247:U:O4'	2.20	0.41
15:EO:110:ALA:HB1	15:EO:115:LEU:HD23	2.02	0.41
22:GV:62:THR:HG22	22:GV:71:LYS:HG2	2.02	0.41
1:EA:1639:C:C2'	1:EA:1640:A:H5'	2.50	0.41
11:EK:106:GLU:OE1	11:EK:106:GLU:N	2.53	0.41
3:AC:175:LEU:CD1	3:AC:175:LEU:N	2.83	0.41
1:GA:348:A:H2'	1:GA:349:U:O4'	2.20	0.41
23:EW:23:LYS:HG3	23:EW:24:ARG:N	2.35	0.41
23:CW:23:LYS:HG3	23:CW:24:ARG:N	2.34	0.41
33:BA:685:G:C2	33:BA:686:U:N3	2.89	0.41
1:GA:2140:G:H5''	1:GA:2141:G:OP2	2.21	0.41
1:CA:1453:A:C8	14:CN:73:ASN:HB3	2.55	0.41
1:GA:1059:G:N2	9:GI:127:SER:HA	2.35	0.41
1:EA:1780:A:OP1	59:EA:3687:HOH:O	2.22	0.41
23:AW:76:ARG:HH21	23:AW:76:ARG:HG2	1.85	0.41
1:GA:1095:A:C4	54:HV:632:ILE:HG12	2.54	0.41
23:EW:10:ARG:O	23:EW:11:ASN:HB2	2.19	0.41
6:AF:11:VAL:N	6:AF:13:LYS:HB3	2.35	0.41
1:AA:2313:C:O4'	6:AF:36:ASN:ND2	2.53	0.41
44:DL:82:ILE:HG23	44:DL:95:TYR:HB3	2.02	0.41
47:BO:42:HIS:CE1	47:BO:46:HIS:CD2	3.09	0.41
6:GF:3:LEU:HD13	6:GF:6:TYR:CG	2.55	0.41
46:FN:28:LYS:HG3	46:FN:29:ALA:N	2.35	0.41
44:FL:27:CYS:HB2	44:FL:28:PRO:CD	2.49	0.41
1:AA:2641:G:H5''	10:AJ:78:THR:HG22	2.01	0.41
14:AN:20:MET:HE1	14:AN:40:LYS:CE	2.50	0.41
33:HA:1102:A:H2'	33:HA:1103:C:C6	2.55	0.41
1:AA:1739:A:H2'	1:AA:1740:G:O4'	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1845:G:OP1	3:CC:255:LYS:NZ	2.49	0.41
3:CC:255:LYS:O	3:CC:256:THR:OG1	2.28	0.41
52:FT:62:ALA:CA	52:FT:67:ILE:HG22	2.50	0.41
6:GF:106:ALA:HB2	6:GF:137:PHE:CD1	2.55	0.41
1:EA:2747:G:H2'	1:EA:2748:A:C8	2.55	0.41
49:HQ:14:SER:HB3	49:HQ:22:VAL:CG2	2.50	0.41
33:FA:1102:A:H2'	33:FA:1103:C:C6	2.55	0.41
18:AR:49:ILE:HG22	18:AR:54:VAL:HG12	2.02	0.41
6:GF:134:GLN:CG	6:GF:135:ILE:N	2.83	0.41
18:CR:39:LEU:O	18:CR:49:ILE:HG23	2.21	0.41
44:BL:24:LEU:HG	44:BL:25:GLU:N	2.32	0.41
45:BM:16:VAL:O	45:BM:20:THR:HG23	2.20	0.41
10:GJ:25:LEU:HB2	10:GJ:62:VAL:CG2	2.49	0.41
24:CX:32:LEU:O	24:CX:33:HIS:CG	2.73	0.41
20:CT:54:GLU:HG3	20:CT:88:LYS:N	2.35	0.41
33:BA:158:G:H2'	33:BA:159:G:C5'	2.49	0.41
42:HJ:92:LEU:O	42:HJ:93:ALA:CB	2.68	0.41
16:AP:3:ILE:O	16:AP:7:LEU:HD23	2.20	0.41
11:EK:16:ALA:O	11:EK:17:ARG:HB2	2.20	0.41
13:CM:13:HIS:O	13:CM:14:LYS:CB	2.68	0.41
9:AI:102:ARG:HG2	9:AI:141:ASP:HA	2.02	0.41
38:BF:9:MET:O	38:BF:85:ILE:HG12	2.21	0.41
1:GA:2305:U:O3'	6:GF:132:ARG:NH1	2.53	0.41
1:AA:215:G:C4'	1:AA:216:A:H4'	2.50	0.41
1:AA:582:A:H2'	1:AA:583:G:C8	2.56	0.41
15:AO:7:ARG:HD2	15:AO:97:PHE:CZ	2.55	0.41
1:CA:2531:A:OP2	7:CG:174:LYS:HG2	2.20	0.41
1:CA:992:C:H4'	18:CR:74:ILE:CD1	2.50	0.41
1:AA:2803:G:H2'	1:AA:2804:U:C6	2.55	0.41
49:DQ:59:VAL:CG2	49:DQ:75:LEU:CD1	2.98	0.41
28:A1:36:LYS:HG3	28:A1:47:ILE:CD1	2.48	0.41
33:BA:115:G:C2	33:BA:289:G:C5	3.08	0.41
48:FP:46:LYS:HB2	48:FP:47:GLU:H	1.74	0.41
1:AA:240:C:O2'	1:AA:257:C:N4	2.47	0.41
1:CA:878:A:C6	1:CA:900:A:C8	3.08	0.41
34:HB:119:GLN:NE2	34:HB:136:ARG:NH2	2.69	0.41
10:EJ:25:LEU:HB2	10:EJ:62:VAL:CG2	2.50	0.41
19:GS:59:GLU:HA	19:GS:64:ALA:CB	2.50	0.41
1:GA:901:C:O2'	1:GA:902:C:O5'	2.34	0.41
1:CA:1177:G:H2'	1:CA:1178:C:O4'	2.20	0.41
37:BE:15:LEU:HD22	37:BE:60:ILE:CG2	2.51	0.41
1:GA:595:C:H2'	1:GA:596:U:C6	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2682:A:C8	4:ED:11:MET:CG	3.03	0.41
13:CM:53:MET:HE3	13:CM:63:ILE:HD13	2.02	0.41
1:AA:2292:U:H2'	1:AA:2293:G:C8	2.55	0.41
42:FJ:57:VAL:O	42:FJ:58:ASN:HB2	2.20	0.41
14:AN:34:ILE:HG12	14:AN:113:ILE:HG23	2.01	0.41
34:HB:199:ILE:O	34:HB:199:ILE:HG13	2.20	0.41
8:EH:31:VAL:HB	8:EH:32:PRO:CD	2.50	0.41
33:HA:264:C:H4'	49:HQ:65:ARG:HD2	2.02	0.41
1:AA:1716:U:H2'	1:AA:1717:A:C8	2.55	0.41
4:GD:37:VAL:HG23	4:GD:91:THR:HB	2.02	0.41
9:GI:48:ILE:HG13	9:GI:49:GLU:H	1.85	0.41
1:CA:1239:G:H2'	1:CA:1240:U:O4'	2.19	0.41
1:AA:2093:G:O2'	1:AA:2094:A:H5'	2.20	0.41
1:EA:1866:A:C6	1:EA:1876:A:N7	2.88	0.41
33:FA:38:G:C2	33:FA:397:A:C2	3.09	0.41
39:FG:140:ASP:O	39:FG:143:ARG:HB3	2.20	0.41
1:AA:2097:A:C6	1:AA:2098:U:C4	3.08	0.41
33:FA:1079:G:C2	33:FA:1080:A:C2	3.08	0.41
19:AS:48:LYS:O	19:AS:51:LEU:N	2.53	0.41
38:HF:81:ASN:OD1	38:HF:83:ALA:N	2.49	0.41
1:CA:2838:G:C6	1:CA:2839:G:C5	3.08	0.41
1:CA:714:U:H5'	1:CA:715:A:OP2	2.20	0.41
1:GA:1843:C:H2'	1:GA:1844:C:C6	2.54	0.41
54:BV:322:PHE:O	54:BV:335:PHE:HB2	2.20	0.41
1:CA:1359:A:C8	1:CA:1373:A:C2	3.08	0.41
33:FA:778:G:C6	33:FA:779:C:N3	2.88	0.41
16:AP:94:ALA:C	16:AP:95:LYS:HD2	2.39	0.41
50:BR:51:TYR:O	50:BR:55:LEU:HD13	2.19	0.41
1:CA:2393:U:H5'	12:CL:60:ARG:O	2.19	0.41
42:DJ:14:ASP:HB3	42:DJ:17:LEU:HB3	2.02	0.41
33:FA:129:A:H1'	33:FA:130:A:C8	2.55	0.41
46:DN:73:PHE:CZ	46:DN:78:GLY:HA2	2.54	0.41
31:G4:16:ILE:HA	31:G4:24:ARG:O	2.19	0.41
33:HA:414:A:H2'	33:HA:415:A:O4'	2.20	0.41
59:GA:3350:HOH:O	12:GL:53:GLY:N	2.35	0.41
1:GA:126:A:C6	1:GA:127:A:N1	2.88	0.41
2:CB:29:A:H2'	2:CB:30:C:C6	2.55	0.41
20:CT:30:ILE:HG13	20:CT:85:VAL:HB	2.02	0.41
33:DA:460:A:H61	33:DA:471:U:H3	1.68	0.41
4:CD:174:SER:O	4:CD:175:LEU:HB2	2.20	0.41
21:CU:52:ASN:C	21:CU:54:PRO:HD2	2.40	0.41
33:FA:436:C:C2	33:FA:437:U:C5	3.07	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:GH:21:VAL:HG22	8:GH:22:LYS:H	1.85	0.41
2:EB:20:G:C6	2:EB:21:G:C5	3.08	0.41
42:DJ:102:LEU:HD13	42:DJ:102:LEU:H	1.85	0.41
20:ET:61:LEU:C	20:ET:61:LEU:HD12	2.40	0.41
41:BI:119:ARG:O	41:BI:119:ARG:HG2	2.18	0.41
1:GA:11:C:C2'	1:GA:12:U:H5'	2.50	0.41
33:FA:1363:A:C8	33:FA:1365:G:C5	3.08	0.41
1:CA:1310:G:C2'	1:CA:1311:G:H5'	2.50	0.41
1:CA:1674:G:N2	1:CA:1677:A:N1	2.67	0.41
32:E5:78:GLY:N	32:E5:79:PRO:HD2	2.35	0.41
36:BD:72:PHE:CZ	36:BD:200:ILE:HD11	2.55	0.41
1:CA:2685:G:OP1	11:CK:78:ARG:NH2	2.53	0.41
23:GW:23:LYS:HE2	23:GW:24:ARG:CA	2.51	0.41
32:A5:60:LEU:HD23	32:A5:64:VAL:HG21	2.01	0.41
32:A5:67:THR:CG2	32:A5:72:LEU:HA	2.50	0.41
1:CA:855:G:C2	23:CW:23:LYS:HD2	2.56	0.41
1:AA:1265:A:O4'	1:AA:1267:U:C6	2.73	0.41
1:GA:2364:C:H4'	23:GW:55:ASP:OD1	2.20	0.41
33:HA:1157:A:C6	33:HA:1180:A:C6	3.08	0.41
1:GA:2024:G:H2'	1:GA:2025:C:O4'	2.20	0.41
6:AF:37:MET:HE2	6:AF:151:LEU:HB3	2.03	0.41
33:HA:807:A:C5	33:HA:808:C:C4	3.08	0.41
46:BN:31:ILE:CD1	46:BN:31:ILE:N	2.82	0.41
16:AP:52:ARG:CG	16:AP:52:ARG:NH1	2.82	0.41
1:GA:2799:A:C6	1:GA:2801:G:C5	3.09	0.41
33:BA:1151:A:C4	33:BA:1152:A:N7	2.89	0.41
47:BO:45:GLU:HG3	47:BO:46:HIS:N	2.35	0.41
42:HJ:8:ILE:CD1	42:HJ:76:ILE:HD11	2.49	0.41
31:C4:3:VAL:O	31:C4:4:ARG:O	2.38	0.41
1:AA:983:A:N6	1:AA:984:A:C2	2.88	0.41
1:EA:1913:A:H1'	55:FW:4:SER:CA	2.50	0.41
39:DG:53:ARG:HG3	1:GA:2096:C:O2'	2.20	0.41
1:CA:1726:C:N4	1:CA:1735:A:H2	2.18	0.41
38:BF:38:ARG:HG2	38:BF:39:LEU:H	1.84	0.41
17:GQ:86:SER:O	17:GQ:87:VAL:C	2.57	0.41
17:CQ:87:VAL:O	17:CQ:88:GLU:HB3	2.19	0.41
1:EA:559:G:OP1	10:EJ:111:LYS:HD3	2.20	0.41
45:HM:14:HIS:HB2	45:HM:17:ILE:HD12	2.01	0.41
44:DL:43:LYS:HG2	44:DL:44:LYS:N	2.34	0.41
9:AI:123:ALA:HB2	9:AI:126:ARG:NH2	2.36	0.41
3:CC:16:VAL:N	3:CC:203:VAL:CG1	2.83	0.41
1:AA:666:A:H2'	1:AA:667:U:H6	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:879:G:C2	1:EA:880:G:C5	3.07	0.41
34:DB:83:ALA:HA	34:DB:88:GLN:NE2	2.35	0.41
50:BR:22:ASP:OD1	50:BR:24:LYS:HE3	2.21	0.41
19:ES:29:VAL:O	19:ES:33:LEU:HD22	2.21	0.41
46:FN:43:ASN:O	46:FN:45:VAL:N	2.53	0.41
7:AG:85:LYS:HG2	7:AG:131:VAL:HG12	2.02	0.41
50:HR:32:TYR:HE2	50:HR:47:THR:HG21	1.85	0.41
1:GA:966:G:H4'	1:GA:2272:U:O2	2.19	0.41
1:CA:42:A:C2'	1:CA:43:G:C5'	2.98	0.41
36:BD:139:PRO:HA	36:BD:182:PHE:HD2	1.85	0.41
33:BA:792:A:C2	33:BA:794:A:C2	3.09	0.41
34:BB:70:GLY:HA2	34:BB:163:ILE:CG2	2.50	0.41
20:GT:54:GLU:HG3	20:GT:88:LYS:CB	2.50	0.41
16:AP:1:SER:H2	16:AP:4:ILE:HG13	1.85	0.41
40:HH:10:MET:HE1	40:HH:33:LYS:HA	2.00	0.41
14:EN:95:THR:CG2	14:EN:113:ILE:HG13	2.50	0.41
19:AS:18:ARG:CG	19:AS:76:VAL:HG13	2.50	0.41
33:DA:1428:A:H2'	33:DA:1429:A:O4'	2.20	0.41
15:EO:53:THR:HB	15:EO:65:THR:HB	2.02	0.41
33:DA:1366:C:H2'	33:DA:1367:C:C6	2.54	0.41
36:DD:161:LEU:HD13	36:DD:161:LEU:N	2.36	0.41
7:GG:163:TYR:O	7:GG:164:ALA:HB3	2.20	0.41
1:GA:1458:U:H5'	1:GA:1459:G:N3	2.35	0.41
1:AA:498:G:C5	1:AA:499:U:C5	3.08	0.41
4:CD:172:VAL:CG2	4:CD:194:PRO:HD3	2.51	0.41
1:GA:806:C:N3	1:GA:807:U:C5	2.88	0.41
19:ES:82:MET:HB2	19:ES:98:LYS:HB2	2.02	0.41
1:CA:1392:A:N6	1:CA:1393:A:N6	2.68	0.41
33:DA:376:G:C2	33:DA:377:G:N7	2.88	0.41
1:GA:2419:U:H2'	1:GA:2420:C:C6	2.55	0.41
3:GC:204:LEU:HG	3:GC:209:ALA:HB1	2.02	0.41
4:AD:68:PHE:C	4:AD:73:VAL:HG12	2.41	0.41
38:BF:10:VAL:N	38:BF:58:HIS:O	2.53	0.41
21:GU:70:ALA:HB3	21:GU:79:ALA:HB1	2.03	0.41
1:GA:36:G:C5	1:GA:37:C:C5	3.09	0.41
7:AG:23:ILE:HG21	7:AG:71:LEU:CD1	2.50	0.41
17:AQ:97:ILE:HD11	17:AQ:105:PHE:HA	2.03	0.41
33:DA:1313:U:H2'	33:DA:1314:C:C6	2.55	0.41
1:EA:1447:C:O2'	1:EA:1544:A:N3	2.46	0.41
1:AA:934:U:H2'	1:AA:935:C:H6	1.85	0.41
54:FV:330:VAL:CG2	54:FV:333:LEU:HD21	2.50	0.41
18:ER:28:ALA:O	18:ER:63:VAL:HG21	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:497:G:H2'	33:DA:498:A:C8	2.55	0.41
1:AA:1713:A:H61	1:AA:1745:A:H61	1.67	0.41
20:GT:14:PRO:HB2	20:GT:16:VAL:HG23	2.02	0.41
33:FA:836:G:C6	33:FA:851:G:C5	3.08	0.41
34:DB:182:VAL:N	34:DB:196:ASP:OD2	2.53	0.41
5:AE:126:VAL:HG23	5:AE:137:LYS:HD2	2.01	0.41
27:G0:24:VAL:C	27:G0:26:SER:H	2.21	0.41
1:CA:2517:C:C6	1:CA:2542:A:N7	2.88	0.41
54:HV:320:LEU:HD23	54:HV:321:ALA:N	2.35	0.41
9:AI:52:LEU:HB3	9:AI:53:PRO:HD2	2.02	0.41
1:GA:560:C:N4	1:GA:561:G:C6	2.88	0.41
33:BA:453:G:C5	33:BA:454:G:N7	2.88	0.41
22:GV:76:ASP:OD1	22:GV:77:VAL:N	2.53	0.41
54:FV:36:VAL:HG12	54:FV:37:ASN:H	1.85	0.41
33:HA:570:G:H1'	33:HA:820:U:C4	2.55	0.41
1:CA:1622:G:C2	1:CA:1623:G:C8	3.08	0.41
37:BE:74:VAL:HG13	37:BE:144:LEU:HB3	2.00	0.41
33:FA:126:G:C2'	33:FA:127:G:O5'	2.69	0.41
33:FA:959:A:C2	33:FA:1222:G:O4'	2.73	0.41
1:EA:1054:A:C2	1:EA:1055:G:C4	3.08	0.41
32:E5:39:THR:HA	32:E5:42:ARG:HD2	2.02	0.41
28:C1:6:GLU:OE1	28:C1:52:LYS:NZ	2.52	0.41
1:EA:2187:U:H3'	1:EA:2188:U:C5	2.55	0.41
1:CA:643:A:C8	28:C1:43:ARG:HD3	2.55	0.41
1:GA:1703:G:HO2'	33:HA:1428:A:HO2'	1.68	0.41
33:FA:232:G:H1'	33:FA:262:A:N1	2.36	0.41
39:BG:103:TRP:CH2	39:BG:141:VAL:HG21	2.56	0.41
1:EA:2197:U:C5	1:EA:2224:G:C6	3.08	0.41
1:CA:215:G:H4'	1:CA:216:A:H4'	2.02	0.41
4:ED:89:GLU:HG2	4:ED:94:GLN:CD	2.40	0.41
31:G4:31:PRO:C	31:G4:33:HIS:H	2.23	0.41
16:AP:23:ASP:OD1	16:AP:88:ARG:HA	2.20	0.41
1:GA:524:G:C6	1:GA:525:U:C4	3.08	0.41
33:BA:751:U:H1'	47:BO:23:GLY:O	2.20	0.41
51:FS:12:ASP:HB3	51:FS:14:HIS:CE1	2.55	0.41
1:GA:2728:U:O2'	1:GA:2729:G:H8	2.03	0.41
1:CA:2052:A:C2	1:CA:2053:G:C8	3.08	0.41
34:BB:74:ALA:O	34:BB:75:ALA:HB2	2.19	0.41
41:FI:63:LEU:N	41:FI:63:LEU:CD2	2.83	0.41
12:EL:61:LEU:HD13	12:EL:61:LEU:N	2.35	0.41
15:GO:36:TYR:N	15:GO:36:TYR:CD1	2.88	0.41
33:FA:454:G:C2'	33:FA:455:G:H5'	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:38:LEU:HB3	14:CN:39:PRO:HD3	2.01	0.41
1:EA:2687:U:H2'	1:EA:2688:G:O4'	2.20	0.41
1:GA:995:C:O2'	1:GA:996:A:P	2.79	0.41
10:GJ:41:LYS:C	10:GJ:43:GLU:H	2.24	0.41
23:EW:50:VAL:HB	23:EW:61:LYS:CD	2.51	0.41
17:CQ:65:ASN:OD1	17:CQ:69:ARG:NH2	2.54	0.41
33:BA:704:A:C6	33:BA:705:G:C5	3.08	0.41
23:GW:22:VAL:CG1	23:GW:25:PHE:CE1	3.03	0.41
23:GW:41:GLY:HA2	23:GW:44:PHE:CE2	2.56	0.41
1:GA:2024:G:OP2	1:GA:2034:U:H4'	2.21	0.41
4:AD:21:SER:H	11:AK:73:ASP:H	1.67	0.41
36:HD:168:PRO:HG2	36:HD:171:LEU:HD11	2.03	0.41
9:GI:60:VAL:HG22	9:GI:66:PHE:CD1	2.55	0.41
6:AF:62:GLN:HB2	6:AF:88:VAL:HG13	2.03	0.41
33:DA:926:G:C6	33:DA:1505:G:C6	3.09	0.41
46:DN:20:TYR:N	46:DN:20:TYR:CD1	2.89	0.41
33:HA:71:A:N6	33:HA:100:G:N7	2.68	0.41
33:HA:72:A:H2'	33:HA:73:C:H5'	2.02	0.41
10:CJ:111:LYS:HA	59:CJ:202:HOH:O	2.19	0.41
6:GF:11:VAL:HG11	6:GF:96:TRP:CZ2	2.55	0.41
14:GN:26:GLY:CA	14:GN:75:ILE:HD13	2.50	0.41
1:AA:42:A:C2'	1:AA:43:G:H5''	2.50	0.41
1:CA:26:G:H1'	1:CA:514:A:N6	2.36	0.41
1:CA:510:C:H2'	1:CA:511:U:O4'	2.21	0.41
1:CA:1813:G:H1'	3:CC:49:THR:CG2	2.47	0.41
3:CC:255:LYS:C	3:CC:257:ARG:H	2.23	0.41
1:GA:528:A:H2	1:GA:2043:C:C5'	2.33	0.41
9:AI:24:GLY:O	9:AI:27:LEU:HG	2.20	0.41
33:DA:207:C:H2'	33:DA:208:U:C6	2.55	0.41
33:HA:658:C:O4'	47:HO:22:THR:OG1	2.38	0.41
33:FA:678:U:O2	33:FA:713:G:N2	2.53	0.41
6:GF:140:ILE:HG23	6:GF:145:VAL:HG12	2.01	0.41
1:CA:2799:A:C6	1:CA:2801:G:C5	3.09	0.41
2:GB:5:U:C2	2:GB:116:G:N2	2.88	0.41
33:DA:134:G:H2'	33:DA:135:C:O4'	2.20	0.41
11:CK:20:MET:HG3	11:CK:21:CYS:N	2.34	0.41
18:AR:24:LYS:HA	18:AR:94:THR:HG23	2.02	0.41
1:CA:2286:G:P	28:C1:29:LYS:CE	3.08	0.41
33:FA:1138:G:H2'	33:FA:1140:C:H6	1.84	0.41
33:BA:575:G:C4	33:BA:881:G:C2	3.08	0.41
1:AA:2294:G:H5''	15:AO:10:ARG:HD3	2.01	0.41
1:GA:1256:G:C2'	5:GE:77:ILE:HD11	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:GQ:25:GLY:CA	17:GQ:29:ARG:NH1	2.84	0.41
1:AA:1526:C:H2'	1:AA:1527:G:O4'	2.20	0.41
33:DA:1295:U:H5''	8:GH:15:LEU:CD1	2.49	0.41
21:GU:82:VAL:CG1	21:GU:83:GLY:N	2.84	0.41
6:AF:103:ILE:HD13	6:AF:173:ASP:HB2	2.03	0.41
2:GB:52:A:H61	15:GO:32:PRO:HB2	1.85	0.41
10:CJ:72:LYS:HD2	10:CJ:74:TYR:CE2	2.56	0.41
1:EA:1250:G:N7	12:EL:18:ARG:NH1	2.51	0.41
1:EA:2394:C:H5''	12:EL:63:LYS:HE2	2.02	0.41
33:HA:484:G:N7	33:HA:486:U:H1'	2.35	0.41
4:AD:70:LYS:O	4:AD:71:ALA:CB	2.68	0.41
11:CK:16:ALA:HB2	11:CK:86:LEU:HD11	2.02	0.41
54:FV:536:PHE:CE1	54:FV:578:LEU:HD23	2.56	0.41
1:CA:1770:G:C6	1:CA:1983:G:C6	3.08	0.41
12:AL:51:GLU:OE1	12:AL:57:LEU:N	2.47	0.41
1:EA:1061:U:H3'	1:EA:1062:G:C5'	2.50	0.41
35:BC:140:ASN:HA	35:BC:143:ARG:CB	2.50	0.41
1:AA:1715:G:N2	1:AA:1744:A:OP2	2.45	0.41
1:AA:910:A:C6	1:AA:911:A:C6	3.08	0.41
10:AJ:36:LEU:HD11	10:AJ:54:ILE:HG22	2.02	0.41
41:HI:34:SER:HB3	41:HI:37:GLN:HG2	2.02	0.41
33:DA:1480:A:H2'	33:DA:1481:U:O4'	2.19	0.41
1:GA:56:A:C6	1:GA:57:C:C4	3.08	0.41
1:GA:2869:G:C2	1:GA:2870:C:C2	3.08	0.41
1:AA:2531:A:OP1	7:AG:174:LYS:HE3	2.21	0.41
35:HC:130:PHE:CE1	35:HC:157:LEU:HD23	2.56	0.41
18:ER:66:HIS:CG	18:ER:94:THR:HG22	2.56	0.41
43:HK:110:ILE:HG22	53:HU:17:ARG:NH1	2.35	0.41
1:GA:1983:G:O2'	1:GA:1984:G:H5'	2.21	0.41
7:CG:162:ARG:CZ	7:CG:168:VAL:HG21	2.50	0.41
33:HA:892:A:O2'	33:HA:1415:G:H4'	2.20	0.41
33:FA:439:U:H2'	33:FA:440:C:H5'	2.02	0.41
1:CA:1234:U:H2'	1:CA:1235:G:O4'	2.20	0.41
54:HV:71:PHE:CE1	54:HV:83:ARG:HG3	2.55	0.41
9:EI:87:SER:OG	9:EI:88:GLY:N	2.53	0.41
37:BE:80:THR:HG23	37:BE:81:LEU:O	2.21	0.41
49:FQ:46:VAL:HG12	49:FQ:47:HIS:N	2.35	0.41
3:AC:172:THR:HG22	3:AC:182:LYS:HG2	2.02	0.41
16:GP:86:LYS:O	16:GP:87:ARG:HB2	2.19	0.41
19:GS:4:ILE:CG2	19:GS:106:VAL:HG22	2.49	0.41
52:BT:34:LYS:O	52:BT:37:ALA:HB3	2.21	0.41
34:HB:166:ASP:OD2	34:HB:190:SER:HA	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:HV:532:LYS:C	54:HV:534:TYR:H	2.23	0.41
10:GJ:72:LYS:HB2	10:GJ:89:PHE:HB2	2.02	0.41
39:DG:106:GLU:O	39:DG:110:LYS:HG2	2.20	0.41
33:HA:1249:C:O2'	41:HI:75:GLN:OE1	2.33	0.41
1:EA:2599:G:N7	3:EC:234:GLY:O	2.53	0.41
47:HO:17:ARG:HH12	47:HO:77:ARG:NH1	2.18	0.41
33:DA:820:U:H4'	33:DA:821:G:OP2	2.21	0.41
1:EA:544:C:N4	1:EA:548:G:OP1	2.52	0.41
1:GA:2386:A:H4'	23:GW:54:ARG:O	2.20	0.41
33:HA:1404:C:H2'	33:HA:1405:G:C8	2.55	0.41
13:CM:31:PHE:CE2	13:CM:110:GLU:HA	2.55	0.41
35:FC:127:ARG:O	35:FC:127:ARG:HG3	2.20	0.41
24:AX:37:PHE:CE2	24:AX:58:ILE:HG21	2.55	0.41
43:DK:50:SER:HA	43:DK:69:ARG:NH1	2.34	0.41
10:AJ:12:LYS:O	10:AJ:13:ARG:CB	2.68	0.41
40:DH:89:LYS:HG3	40:DH:90:ASP:N	2.34	0.41
34:BB:134:LEU:C	34:BB:136:ARG:H	2.24	0.41
41:FI:52:LEU:HB3	41:FI:57:MET:HG2	2.03	0.41
1:CA:945:A:C5	1:CA:2448:A:C2	3.08	0.41
41:BI:7:TYR:CD1	41:BI:20:PHE:CE1	3.08	0.41
33:HA:1008:U:H2'	33:HA:1009:U:H6	1.85	0.41
32:A5:58:THR:HG21	32:A5:82:ILE:H	1.86	0.41
32:A5:28:ALA:HA	32:A5:81:LEU:HD22	2.03	0.41
36:DD:30:THR:HG22	36:DD:31:LYS:N	2.35	0.41
33:DA:1492:A:H2'	33:DA:1492:A:N3	2.36	0.41
41:BI:57:MET:HA	41:BI:60:LYS:HD3	2.02	0.41
54:HV:222:LEU:O	54:HV:226:ALA:N	2.50	0.41
38:BF:2:ARG:HD2	38:BF:92:THR:OG1	2.20	0.41
6:AF:11:VAL:C	6:AF:13:LYS:N	2.70	0.41
1:GA:983:A:C6	1:GA:984:A:C2	3.08	0.41
33:BA:1508:A:OP1	59:BA:1797:HOH:O	2.22	0.41
41:FI:47:VAL:CG2	41:FI:76:ALA:HB1	2.50	0.41
18:CR:1:MET:HA	18:CR:42:ALA:O	2.20	0.41
33:DA:363:A:C6	33:DA:364:A:C6	3.09	0.41
10:CJ:81:ILE:CG1	10:CJ:82:GLY:H	2.31	0.41
14:CN:45:ARG:CG	14:CN:45:ARG:HH11	2.34	0.41
33:BA:1412:C:C2	33:BA:1489:G:N2	2.89	0.41
1:GA:1803:A:O2'	3:GC:256:THR:HG21	2.21	0.41
6:GF:3:LEU:HD13	6:GF:6:TYR:HB3	2.02	0.41
46:FN:21:PHE:HD1	46:FN:55:SER:HG	1.65	0.41
1:GA:943:A:N1	1:GA:944:C:C4	2.89	0.41
45:FM:87:ARG:HG2	45:FM:97:VAL:CG1	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:EL:77:ILE:N	12:EL:77:ILE:HD12	2.36	0.41
48:HP:42:ILE:HG22	48:HP:43:ALA:N	2.34	0.41
33:BA:1314:C:H41	51:BS:4:SER:HA	1.85	0.41
4:AD:106:LYS:O	4:AD:107:VAL:HB	2.20	0.41
1:GA:2096:C:H2'	1:GA:2097:A:C8	2.55	0.41
34:HB:20:ARG:C	34:HB:22:TRP:N	2.74	0.41
1:EA:2707:U:C2'	14:EN:71:ARG:HH11	2.34	0.41
11:GK:24:VAL:CG1	11:GK:30:ARG:HD2	2.50	0.41
50:DR:21:ILE:HD12	50:DR:22:ASP:N	2.35	0.41
34:FB:116:LEU:O	34:FB:119:GLN:HG2	2.20	0.41
6:GF:131:VAL:HB	6:GF:136:ILE:HD11	2.01	0.41
18:CR:49:ILE:HG22	18:CR:54:VAL:N	2.35	0.41
1:CA:1316:U:C2	1:CA:1337:G:N2	2.88	0.41
22:GV:2:PHE:HB2	22:GV:61:LEU:CD1	2.51	0.41
4:AD:202:ILE:HD13	4:AD:202:ILE:C	2.41	0.41
1:EA:1313:U:C2'	1:EA:1610:A:C2	3.04	0.41
33:BA:994:A:C4	33:BA:1216:A:H4'	2.56	0.41
1:CA:1872:A:C8	1:CA:1873:G:C8	3.07	0.41
2:GB:117:G:C5	2:GB:118:C:C5	3.08	0.41
34:FB:86:CYS:C	34:FB:88:GLN:H	2.24	0.41
1:CA:1778:U:H2'	1:CA:1784:A:N6	2.35	0.41
52:BT:85:LYS:O	52:BT:86:LEU:CB	2.69	0.41
54:BV:227:ALA:HB1	54:BV:234:MET:HB3	2.03	0.41
44:HL:73:ASN:ND2	44:HL:103:ASP:O	2.51	0.41
33:DA:844:G:C3'	33:DA:845:A:H5''	2.50	0.41
34:DB:71:THR:O	34:DB:72:LYS:HG2	2.20	0.41
33:DA:1087:G:C2	33:DA:1088:G:C5	3.08	0.41
5:AE:109:LEU:O	5:AE:112:LEU:N	2.53	0.41
5:AE:149:ILE:HD12	5:AE:188:MET:SD	2.60	0.41
38:HF:51:ILE:CG2	38:HF:85:ILE:HD12	2.50	0.41
33:BA:1305:G:H22	33:BA:1331:G:H2'	1.85	0.41
2:EB:116:G:H4'	15:EO:54:VAL:HG12	2.02	0.41
1:AA:1619:G:O2'	29:A2:1:MET:N	2.38	0.41
54:HV:557:ILE:HG21	54:HV:576:ILE:HD12	2.01	0.41
14:CN:51:LEU:O	14:CN:54:LEU:HB3	2.20	0.41
33:DA:354:G:N1	33:DA:355:C:C4	2.89	0.41
33:DA:407:U:H2'	33:DA:408:A:H8	1.86	0.41
22:GV:75:GLN:HB2	22:GV:92:VAL:HG23	2.01	0.41
36:DD:91:LEU:HD11	36:DD:197:GLU:HG2	2.02	0.41
49:HQ:59:VAL:CG2	49:HQ:75:LEU:CD1	2.98	0.41
34:BB:83:ALA:O	34:BB:88:GLN:HG3	2.21	0.41
9:AI:55:PRO:O	9:AI:71:LYS:HB2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:HN:52:PRO:O	46:HN:55:SER:HB3	2.21	0.41
1:CA:1205:A:H4'	1:CA:1206:G:OP2	2.21	0.41
42:FJ:101:SER:C	42:FJ:102:LEU:HD22	2.41	0.41
34:FB:174:GLU:O	34:FB:178:LEU:HB2	2.21	0.41
33:DA:332:G:OP2	52:DT:5:LYS:HB2	2.20	0.41
18:ER:21:ARG:NH2	18:ER:93:PHE:CE2	2.88	0.41
1:CA:1857:G:C2	1:CA:1884:G:N3	2.89	0.41
33:FA:22:G:H4'	33:FA:885:G:C8	2.55	0.41
1:GA:2355:G:C2	1:GA:2363:G:C4	3.07	0.41
1:GA:1378:A:C2'	59:GA:3740:HOH:O	2.69	0.41
1:EA:608:A:C2	1:EA:621:A:C2	3.08	0.41
44:HL:38:TYR:HD2	44:HL:52:VAL:HG23	1.86	0.41
1:CA:1178:C:C4	1:CA:1179:G:N7	2.89	0.41
38:BF:46:GLN:NE2	38:BF:56:LYS:HG3	2.35	0.41
1:EA:2443:C:O2'	1:EA:2444:G:H5'	2.20	0.41
24:EX:63:ILE:HG22	24:EX:67:LEU:HD23	2.02	0.41
1:AA:1500:G:C5	1:AA:1501:G:N7	2.89	0.41
7:GG:61:TRP:CE3	7:GG:61:TRP:HA	2.56	0.41
1:AA:729:G:C4	1:AA:1775:U:C2	3.08	0.41
45:HM:48:LEU:HD21	45:HM:52:GLN:C	2.41	0.41
40:DH:47:GLU:N	40:DH:64:LYS:HG3	2.36	0.41
1:AA:2291:U:OP1	1:AA:2380:C:O2'	2.23	0.41
16:CP:102:ARG:O	16:CP:103:THR:HG22	2.20	0.41
33:DA:223:A:C5	33:DA:224:U:C5	3.09	0.41
54:FV:364:VAL:HG23	54:FV:386:ILE:HD11	2.02	0.41
1:GA:1354:A:H2'	1:GA:1355:G:O4'	2.19	0.41
51:HS:41:PHE:CE1	51:HS:67:VAL:O	2.73	0.41
1:EA:2400:G:C6	1:EA:2401:U:C4	3.09	0.41
34:BB:99:MET:HA	34:BB:106:VAL:HG21	2.01	0.41
30:C3:22:LYS:HA	30:C3:47:ALA:O	2.20	0.41
1:EA:1661:G:OP1	59:EA:3439:HOH:O	2.22	0.41
33:DA:1015:G:H2'	33:DA:1016:A:O4'	2.21	0.41
1:GA:2489:U:O2	1:GA:2491:U:C4	2.74	0.41
35:DC:107:ARG:O	35:DC:108:LYS:HB2	2.20	0.41
1:AA:630:G:N2	1:AA:632:A:H3'	2.35	0.41
20:GT:22:THR:O	20:GT:25:GLU:N	2.51	0.41
1:AA:861:A:C2	1:AA:917:A:C4	3.08	0.41
33:FA:753:A:H4'	33:FA:754:C:O5'	2.21	0.41
50:BR:29:LEU:O	50:BR:31:ASN:N	2.54	0.41
1:AA:198:C:O2'	1:AA:199:A:H5''	2.20	0.41
1:GA:241:A:O2'	30:G3:2:LYS:NZ	2.54	0.41
1:EA:2340:A:H2'	1:EA:2341:G:C8	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:EF:35:LEU:HD12	6:EF:88:VAL:HB	2.01	0.41
33:BA:559:A:OP2	37:BE:126:LYS:NZ	2.52	0.41
33:DA:610:U:O4	59:DA:1847:HOH:O	2.21	0.41
1:CA:2666:C:C5	1:CA:2667:C:C5	3.09	0.41
33:HA:1321:U:C4	33:HA:1322:C:C5	3.08	0.41
33:FA:964:A:OP1	59:FA:1828:HOH:O	2.22	0.41
15:GO:11:ALA:HB2	15:GO:96:GLY:N	2.35	0.41
1:CA:1828:G:OP1	59:CA:3453:HOH:O	2.21	0.41
33:BA:1108:G:C5	33:BA:1109:C:C5	3.08	0.41
34:DB:166:ASP:O	34:DB:169:HIS:HB2	2.20	0.41
1:GA:2485:G:H5''	13:GM:45:GLN:HE21	1.84	0.41
29:A2:44:VAL:O	29:A2:44:VAL:HG12	2.21	0.41
1:EA:2464:G:H2'	1:EA:2465:C:O4'	2.21	0.41
3:EC:143:VAL:HB	3:EC:153:LEU:HB2	2.03	0.41
1:GA:2078:C:O2'	1:GA:2079:U:H5'	2.21	0.41
1:EA:2655:G:HO2'	1:EA:2656:U:P	2.43	0.41
5:EE:124:PHE:CZ	5:EE:137:LYS:HD3	2.56	0.41
19:ES:32:ALA:O	19:ES:36:LEU:HD22	2.20	0.41
47:FO:43:PHE:CE2	47:FO:56:LEU:HD22	2.56	0.41
1:CA:1483:G:C6	1:CA:1484:U:C4	3.08	0.41
43:DK:29:ASN:OD1	43:DK:30:THR:N	2.54	0.41
41:HI:91:ASP:CG	41:HI:93:SER:HB3	2.41	0.41
1:CA:111:A:C2	1:CA:112:U:C2	3.09	0.41
10:EJ:30:THR:HG22	10:EJ:31:GLU:N	2.36	0.41
39:BG:7:ILE:HD13	39:BG:7:ILE:N	2.36	0.41
6:GF:152:ASP:OD1	6:GF:152:ASP:N	2.54	0.41
25:EY:23:ARG:HA	25:EY:23:ARG:HE	1.86	0.41
18:CR:48:LYS:H	18:CR:48:LYS:HE3	1.85	0.41
52:HT:51:PHE:C	52:HT:51:PHE:CD1	2.94	0.41
9:CI:96:LYS:HG3	9:CI:136:GLY:HA3	2.02	0.41
33:FA:1533:C:H3'	33:FA:1534:A:C5'	2.50	0.41
33:FA:1533:C:H3'	33:FA:1534:A:H5''	2.03	0.41
10:EJ:44:TYR:HB2	17:EQ:63:ARG:HB3	2.03	0.41
32:E5:31:ARG:HA	32:E5:31:ARG:HD3	1.80	0.41
1:EA:2025:C:H2'	1:EA:2026:U:C6	2.56	0.41
43:HK:81:ASN:HB3	43:HK:106:ARG:O	2.18	0.41
23:EW:60:ALA:HA	23:EW:81:ILE:HD12	2.03	0.41
1:GA:84:A:H62	1:GA:101:A:H2	1.68	0.41
3:EC:91:ALA:HB3	3:EC:103:ILE:HG22	2.03	0.41
6:CF:32:LYS:HA	6:CF:95:MET:SD	2.61	0.41
10:CJ:38:GLY:O	10:CJ:40:HIS:N	2.53	0.41
33:DA:1029:U:H1'	33:DA:1033:G:N2	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:GI:122:GLU:HG2	9:GI:126:ARG:NH1	2.33	0.41
37:FE:77:ASN:HB2	37:FE:82:GLN:NE2	2.36	0.41
54:HV:645:GLN:O	54:HV:646:GLU:C	2.59	0.41
1:AA:2313:C:H4'	6:AF:36:ASN:OD1	2.21	0.41
41:HI:94:LEU:O	41:HI:98:LEU:N	2.48	0.41
33:HA:1083:U:C5	33:HA:1084:G:C6	3.09	0.41
9:GI:34:ILE:HA	9:GI:37:PHE:CD1	2.56	0.41
42:FJ:35:GLN:O	42:FJ:36:VAL:HB	2.20	0.41
44:FL:57:LEU:HD21	44:FL:82:ILE:HG13	2.02	0.41
1:CA:2352:A:C6	23:CW:30:VAL:HG11	2.55	0.41
1:CA:2352:A:N1	23:CW:30:VAL:HG21	2.35	0.41
1:GA:2346:A:O4'	1:GA:2383:G:C1'	2.69	0.41
9:AI:14:ALA:O	9:AI:45:THR:HG21	2.20	0.41
33:FA:1451:U:C2'	33:FA:1452:C:OP1	2.68	0.41
43:BK:35:THR:HA	43:BK:42:LEU:CG	2.49	0.41
33:HA:1012:A:C6	33:HA:1013:G:C6	3.09	0.41
9:GI:85:ILE:HA	9:GI:100:ILE:HD12	2.01	0.41
9:CI:85:ILE:HG22	9:CI:86:LYS:N	2.35	0.41
1:EA:518:G:H4'	19:ES:18:ARG:CZ	2.51	0.41
6:GF:141:ASP:O	6:GF:144:LYS:N	2.50	0.41
6:GF:55:ASP:HB3	6:GF:140:ILE:HD11	2.03	0.41
18:CR:49:ILE:HG22	18:CR:53:PHE:C	2.40	0.41
18:CR:51:VAL:HB	18:CR:52:PRO:CD	2.51	0.41
14:AN:29:VAL:CG1	14:AN:75:ILE:HG23	2.51	0.41
54:DV:4:THR:HG21	54:DV:378:ARG:CZ	2.50	0.41
49:DQ:50:ASN:O	49:DQ:50:ASN:ND2	2.53	0.41
33:BA:590:U:OP1	40:BH:31:LYS:HG2	2.20	0.41
1:AA:1532:A:H61	1:AA:1539:U:H3	1.69	0.41
36:BD:167:LYS:HA	36:BD:168:PRO:HD3	1.88	0.41
36:BD:168:PRO:HB2	36:BD:171:LEU:CD1	2.50	0.41
1:AA:2281:A:C2	1:AA:2282:G:C5	3.09	0.41
44:DL:24:LEU:C	44:DL:26:ALA:H	2.23	0.41
7:AG:112:VAL:HG23	7:AG:113:ASP:H	1.86	0.41
32:A5:118:ILE:CB	32:A5:119:PRO:CD	2.99	0.41
1:AA:1528:A:OP2	1:AA:1543:G:N2	2.53	0.41
1:GA:2340:A:H2'	1:GA:2341:G:C8	2.56	0.41
36:HD:192:SER:O	36:HD:193:ALA:HB2	2.21	0.41
1:AA:1452:G:H2'	1:AA:1457:U:O4	2.21	0.41
11:AK:34:GLY:O	11:AK:36:GLY:N	2.54	0.41
3:AC:166:ARG:HG3	3:AC:166:ARG:O	2.20	0.41
7:CG:25:ILE:O	7:CG:33:THR:OG1	2.37	0.41
33:DA:9:G:N7	33:DA:558:G:O2'	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:1415:G:C4	33:DA:1416:G:C8	3.08	0.41
33:DA:21:G:N2	33:DA:22:G:C6	2.88	0.41
1:GA:511:U:C5	1:GA:512:G:C5	3.08	0.41
20:CT:59:ASN:O	20:CT:83:ALA:O	2.38	0.41
1:GA:1410:G:C6	1:GA:1411:U:C4	3.08	0.41
5:AE:117:ARG:HA	5:AE:185:LYS:HD3	2.01	0.41
38:BF:97:THR:O	38:BF:98:GLU:CB	2.69	0.41
52:HT:62:ALA:CA	52:HT:67:ILE:HG22	2.51	0.41
33:BA:127:G:N2	33:BA:235:C:C2	2.89	0.41
1:GA:2104:C:H2'	1:GA:2105:U:C4'	2.51	0.41
33:DA:811:C:H4'	33:DA:900:A:N6	2.35	0.41
1:EA:57:C:H2'	1:EA:58:G:O4'	2.21	0.41
1:AA:1710:G:H2'	1:AA:1711:A:H8	1.86	0.41
33:FA:694:A:OP1	43:FK:55:SER:HB3	2.21	0.41
1:GA:801:G:O4'	5:GE:49:ARG:NE	2.53	0.41
1:AA:68:G:H2'	1:AA:69:C:O4'	2.20	0.41
8:EH:31:VAL:HB	8:EH:32:PRO:HD3	2.02	0.41
1:AA:2837:A:H2'	1:AA:2838:G:H8	1.86	0.41
33:DA:629:A:H2'	33:DA:630:A:O4'	2.21	0.41
46:FN:26:GLU:HG2	46:FN:27:LEU:HD12	2.03	0.41
33:FA:1287:A:H2'	33:FA:1288:A:C8	2.56	0.41
11:GK:13:ASN:OD1	11:GK:13:ASN:N	2.48	0.41
33:DA:590:U:H2'	33:DA:591:U:C6	2.55	0.41
42:HJ:11:LYS:CG	42:HJ:97:ASP:HB3	2.50	0.41
33:BA:784:A:C6	33:BA:799:G:C2	3.08	0.41
51:BS:11:ILE:HB	51:BS:41:PHE:HE2	1.85	0.41
4:CD:1:MET:HG2	4:CD:205:PRO:HG3	2.03	0.41
43:DK:72:ASP:O	43:DK:73:ALA:HB3	2.21	0.41
50:FR:71:THR:HG23	50:FR:73:ARG:H	1.86	0.41
16:CP:48:ALA:CB	16:CP:95:LYS:HG3	2.51	0.41
52:FT:9:LYS:HA	52:FT:12:ILE:CG2	2.50	0.41
33:DA:419:C:C4	33:DA:420:U:C4	3.08	0.41
47:FO:19:ALA:O	47:FO:20:ASN:HB2	2.20	0.41
13:EM:108:VAL:HG13	13:EM:109:PRO:HD2	2.02	0.41
1:GA:414:C:O4'	1:GA:1863:G:N2	2.54	0.41
20:CT:19:LYS:O	20:CT:23:ALA:HB3	2.20	0.41
1:CA:1635:A:C6	1:CA:1636:U:C2	3.09	0.41
1:EA:2899:A:H2'	1:EA:2900:A:C8	2.56	0.41
44:DL:86:ARG:HA	44:DL:94:ARG:HA	2.03	0.41
22:GV:31:TYR:HB3	22:GV:37:PRO:HB3	2.03	0.41
5:AE:60:TRP:CE2	5:AE:70:SER:HB3	2.56	0.41
36:DD:139:PRO:HB3	36:DD:184:ARG:HA	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:HT:42:GLY:O	52:HT:44:LYS:N	2.53	0.41
39:DG:103:TRP:CH2	39:DG:141:VAL:HG21	2.55	0.41
1:AA:2895:G:H2'	1:AA:2896:C:C6	2.56	0.41
54:BV:29:ARG:HG3	54:BV:269:ALA:HB1	2.03	0.41
33:FA:602:A:H2'	33:FA:603:U:C6	2.55	0.41
1:EA:1440:U:H2'	1:EA:1441:G:H8	1.85	0.41
13:GM:21:ALA:CB	13:GM:100:LYS:N	2.84	0.41
46:FN:6:MET:HE2	46:FN:63:ARG:HH22	1.86	0.41
33:HA:591:U:C2	33:HA:592:G:C8	3.09	0.41
1:EA:1366:A:C6	1:EA:1367:A:C4	3.09	0.41
49:HQ:5:ILE:O	49:HQ:5:ILE:HG13	2.20	0.41
35:HC:162:ILE:HD12	35:HC:162:ILE:O	2.21	0.41
1:GA:1021:A:N3	1:GA:1021:A:H3'	2.35	0.41
37:DE:70:ASN:ND2	37:DE:70:ASN:O	2.40	0.41
3:EC:163:ILE:HG12	3:EC:173:LEU:CD1	2.50	0.41
33:DA:53:A:C2	33:DA:359:G:C2	3.09	0.41
45:BM:114:LYS:H	45:BM:115:PRO:CD	2.33	0.41
17:GQ:60:TRP:CZ2	17:GQ:93:ILE:HB	2.56	0.41
32:A5:129:LEU:CB	32:A5:130:PRO:HD2	2.50	0.41
33:HA:1236:A:H1'	33:HA:1333:A:N1	2.36	0.41
1:AA:1056:G:OP1	32:A5:34:THR:OG1	2.34	0.41
33:BA:1323:G:H2'	33:BA:1324:A:C8	2.55	0.41
17:AQ:94:LEU:C	17:AQ:96:ASP:H	2.24	0.41
1:AA:1107:G:H5''	32:A5:58:THR:HG23	2.02	0.41
36:DD:35:GLU:HG3	36:DD:36:GLN:N	2.35	0.41
33:DA:409:U:H2'	33:DA:410:G:C8	2.56	0.41
36:DD:27:ALA:C	36:DD:29:ASP:N	2.74	0.41
33:HA:1134:G:C2	33:HA:1135:U:C2	3.08	0.41
33:HA:978:A:C4	33:HA:1319:A:C2	3.09	0.41
10:GJ:81:ILE:CG1	10:GJ:82:GLY:N	2.76	0.41
38:BF:92:THR:O	38:BF:93:LYS:HG2	2.20	0.41
34:FB:113:LEU:HD11	34:FB:144:GLU:HG2	2.01	0.41
1:GA:947:A:O2'	1:GA:984:A:H2	2.03	0.41
33:BA:1317:C:O4'	46:BN:49:GLN:HG2	2.21	0.41
1:AA:2720:U:H4'	1:AA:2845:U:O2'	2.21	0.41
1:GA:1292:G:H2'	1:GA:1293:C:C6	2.56	0.41
33:FA:981:U:H5	33:FA:982:U:HO2'	1.63	0.41
23:CW:60:ALA:CB	23:CW:81:ILE:CD1	2.98	0.41
48:HP:46:LYS:CG	48:HP:47:GLU:H	2.30	0.41
52:FT:68:HIS:C	52:FT:69:LYS:HZ3	2.21	0.41
9:GI:79:LEU:CA	9:GI:85:ILE:HD13	2.50	0.41
38:BF:62:MET:HG3	38:BF:63:ASN:N	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:1:MET:O	14:CN:2:ARG:CB	2.69	0.41
33:BA:673:A:C4	33:BA:734:G:N2	2.89	0.41
4:CD:106:LYS:CB	4:CD:206:ALA:H	2.33	0.41
38:FF:42:TRP:HH2	50:FR:24:LYS:HB3	1.85	0.41
38:FF:59:TYR:CE2	50:FR:67:LEU:HD21	2.55	0.41
12:CL:57:LEU:HD22	30:C3:53:ASP:HB3	2.02	0.41
34:DB:98:GLY:C	34:DB:100:LEU:N	2.73	0.41
31:G4:36:ARG:HG2	31:G4:37:GLN:N	2.35	0.41
5:GE:160:ALA:O	5:GE:161:ALA:HB3	2.21	0.41
33:FA:145:G:N1	33:FA:146:G:C5	2.89	0.41
33:DA:962:C:H2'	33:DA:963:G:O4'	2.21	0.41
54:BV:218:TRP:HZ3	54:BV:223:ILE:HB	1.86	0.41
33:BA:1179:A:H2'	33:BA:1180:A:O4'	2.21	0.41
33:DA:841:C:H42	33:DA:843:U:H5	1.68	0.41
44:HL:43:LYS:HG2	44:HL:44:LYS:H	1.84	0.41
35:HC:7:PRO:HG2	35:HC:184:TYR:CD2	2.55	0.41
1:GA:2354:C:C4'	23:GW:31:LEU:HD22	2.51	0.41
21:AU:39:ASN:HD22	21:AU:64:ILE:HG21	1.85	0.41
4:CD:61:THR:OG1	4:CD:63:PRO:HD2	2.21	0.41
33:DA:1283:U:H2'	33:DA:1284:C:C6	2.56	0.41
1:CA:1022:G:C5	1:CA:1140:C:C4	3.09	0.41
42:HJ:50:THR:CG2	42:HJ:64:GLN:HG2	2.50	0.41
10:EJ:121:LYS:HE3	10:EJ:121:LYS:HB2	1.86	0.41
33:BA:109:A:C6	33:BA:327:A:C6	3.09	0.41
33:HA:1181:G:O2'	33:HA:1182:G:C5	2.69	0.41
41:BI:39:PHE:HA	41:BI:42:GLU:OE1	2.21	0.41
1:CA:898:C:H2'	1:CA:899:A:O4'	2.20	0.41
1:EA:714:U:H5''	47:FO:89:ARG:NH2	2.36	0.41
43:HK:92:GLY:O	43:HK:96:THR:HB	2.21	0.41
1:AA:1843:C:O2'	3:AC:253:GLY:O	2.27	0.41
6:CF:112:ASP:OD1	6:CF:113:PHE:N	2.54	0.41
6:AF:121:PHE:CZ	6:AF:166:ARG:N	2.88	0.41
35:DC:121:THR:CG2	35:DC:122:SER:N	2.84	0.41
33:BA:126:G:OP1	33:BA:605:U:O2'	2.28	0.41
48:DP:43:ALA:HB1	48:DP:46:LYS:HD2	2.02	0.41
35:HC:14:ILE:O	35:HC:15:VAL:HG22	2.21	0.41
10:CJ:54:ILE:HD12	10:CJ:55:ILE:N	2.35	0.41
20:AT:54:GLU:HG3	20:AT:88:LYS:N	2.35	0.41
1:GA:2420:C:H5''	28:G1:7:LYS:HZ3	1.85	0.41
33:DA:455:G:C2	33:DA:456:A:C4	3.09	0.41
1:EA:277:G:C2'	1:EA:278:A:OP2	2.69	0.41
5:GE:23:PHE:HB2	5:GE:111:GLU:HG2	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:3:LEU:HD12	6:CF:172:PHE:CD2	2.55	0.41
54:BV:53:MET:HB2	54:BV:56:GLU:CG	2.50	0.41
1:GA:396:G:C5	1:GA:397:U:C5	3.08	0.41
33:FA:820:U:H4'	33:FA:821:G:OP2	2.20	0.41
41:DI:6:TYR:CG	41:DI:89:GLU:OE1	2.74	0.41
31:C4:19:ARG:O	31:C4:22:VAL:N	2.54	0.41
11:CK:98:ARG:HH21	33:DA:340:U:P	2.44	0.41
54:HV:338:VAL:O	54:HV:380:GLY:N	2.39	0.41
2:EB:11:C:N4	2:EB:12:C:N4	2.69	0.41
1:CA:10:A:C5	1:CA:11:C:C5	3.09	0.41
33:BA:784:A:H2'	33:BA:785:G:H8	1.85	0.41
54:HV:5:THR:HG23	54:HV:6:PRO:HD3	2.03	0.41
54:FV:118:GLY:CA	54:FV:157:GLN:OE1	2.69	0.41
1:AA:102:U:C4	25:AY:2:LYS:HB2	2.56	0.41
10:GJ:20:ALA:O	10:GJ:21:THR:C	2.58	0.41
47:HO:6:GLU:HG3	47:HO:7:ALA:N	2.36	0.41
2:AB:94:A:H2'	2:AB:95:U:C6	2.56	0.41
33:DA:868:C:N4	33:DA:869:G:C2	2.89	0.41
1:CA:146:A:H2'	1:CA:147:C:C6	2.56	0.41
6:AF:73:VAL:HG22	6:AF:78:ILE:HD11	2.03	0.41
21:CU:70:ALA:CB	21:CU:79:ALA:HB1	2.50	0.41
1:EA:820:A:H2'	1:EA:821:A:O4'	2.21	0.41
33:DA:1225:A:H2'	33:DA:1226:C:C5	2.56	0.41
2:EB:66:A:C2	2:EB:108:A:C6	3.09	0.41
1:GA:468:G:N7	29:G2:39:ARG:NH2	2.68	0.41
33:BA:1077:G:N2	33:BA:1080:A:OP2	2.43	0.41
1:AA:195:A:H3'	1:AA:196:A:H4'	2.03	0.41
1:AA:2862:G:C5	1:AA:2863:C:C5	3.09	0.41
1:GA:1471:G:C5	1:GA:1472:C:C5	3.09	0.41
1:AA:2875:C:O2'	1:AA:2876:G:H5'	2.20	0.41
1:AA:1482:G:C4	1:AA:1483:G:C8	3.09	0.41
11:GK:1:MET:HE2	11:GK:32:TYR:CE1	2.56	0.41
39:BG:77:SER:N	39:BG:86:GLN:OE1	2.54	0.41
33:HA:56:U:H2'	33:HA:57:G:C8	2.56	0.41
33:HA:57:G:C6	33:HA:58:C:C4	3.09	0.41
20:CT:26:LYS:O	20:CT:27:SER:CB	2.68	0.41
1:GA:2333:A:O4'	1:GA:2335:A:H1'	2.21	0.41
1:AA:189:G:P	24:AX:13:THR:HG21	2.61	0.41
1:AA:76:C:OP1	25:AY:48:ARG:NH1	2.53	0.41
48:FP:20:VAL:CG2	48:FP:32:PHE:HB2	2.51	0.41
6:EF:57:ALA:HB2	6:EF:64:PRO:HD3	2.03	0.41
1:AA:2899:A:H2'	1:AA:2900:A:C8	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:2283:C:H5''	1:EA:2389:G:O2'	2.20	0.41
25:EY:44:LYS:O	25:EY:48:ARG:HG2	2.21	0.41
15:EO:106:LEU:HD23	15:EO:107:ALA:N	2.35	0.41
33:HA:1028:C:C5	33:HA:1029:U:C2	3.08	0.41
3:GC:66:PHE:HB3	3:GC:150:GLY:O	2.20	0.41
1:CA:126:A:O5'	29:C2:19:ARG:HG3	2.21	0.41
7:CG:92:GLY:HA2	54:DV:147:MET:CE	2.51	0.41
33:FA:1437:A:H2'	33:FA:1438:G:H8	1.86	0.41
1:CA:2881:U:O2'	1:CA:2882:A:H5'	2.21	0.41
37:DE:156:LYS:NZ	40:DH:71:VAL:O	2.43	0.41
52:DT:66:LEU:HD12	52:DT:66:LEU:C	2.41	0.41
1:GA:2056:G:N3	1:GA:2056:G:H2'	2.35	0.41
12:CL:23:ILE:N	12:CL:23:ILE:HD12	2.35	0.41
54:FV:218:TRP:N	54:FV:218:TRP:CD1	2.89	0.41
1:GA:338:G:N2	1:GA:339:U:H1'	2.35	0.41
33:FA:604:G:C2	33:FA:635:A:C2	3.08	0.41
1:AA:438:G:H2'	1:AA:439:A:C8	2.56	0.41
17:EQ:91:ARG:CB	17:EQ:94:LEU:HB2	2.50	0.41
33:HA:1306:A:C6	33:HA:1331:G:H1'	2.56	0.41
23:AW:24:ARG:HD3	23:AW:65:LYS:HE2	2.02	0.41
1:AA:996:A:H4'	17:AQ:91:ARG:CG	2.51	0.41
1:EA:857:G:H2'	1:EA:858:G:O4'	2.21	0.41
33:DA:425:G:H2'	33:DA:426:U:O4'	2.20	0.41
36:DD:26:ARG:HD2	36:DD:31:LYS:HD3	2.03	0.41
3:AC:68:ARG:CD	3:AC:103:ILE:HD11	2.51	0.41
33:BA:705:G:H2'	33:BA:706:A:O4'	2.20	0.41
48:BP:12:LYS:HG2	48:BP:13:LYS:HG2	2.02	0.41
1:GA:2755:C:HO2'	1:GA:2756:U:H6	1.68	0.41
1:GA:2755:C:O2'	1:GA:2756:U:H2'	2.21	0.41
9:GI:126:ARG:HA	9:GI:129:GLU:HG3	2.03	0.41
37:FE:77:ASN:O	37:FE:80:THR:HG22	2.20	0.41
1:AA:2364:C:H4'	23:AW:55:ASP:OD1	2.20	0.41
1:GA:1087:G:C2	1:GA:1103:A:N3	2.88	0.41
1:AA:84:A:P	21:AU:5:ARG:NH2	2.94	0.41
36:HD:145:ILE:HD11	36:HD:155:VAL:HG21	2.03	0.41
37:FE:72:ILE:HD11	37:FE:145:GLU:HG3	2.03	0.41
9:GI:57:VAL:HG22	9:GI:71:LYS:HE3	2.02	0.41
33:HA:1086:U:O2'	33:HA:1087:G:H5'	2.19	0.41
16:GP:57:ALA:O	16:GP:58:PHE:HB3	2.21	0.41
9:GI:12:VAL:H	9:GI:23:VAL:CG1	2.34	0.41
23:GW:30:VAL:HA	23:GW:60:ALA:HB3	2.03	0.41
1:CA:563:A:C6	1:CA:2018:G:C4	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2746:U:C5	1:CA:2747:G:N7	2.89	0.41
7:GG:132:LEU:HD23	7:GG:132:LEU:N	2.35	0.41
5:AE:130:LYS:HB3	5:AE:133:LEU:HG	2.02	0.41
1:CA:572:A:H5'	1:CA:573:U:OP2	2.21	0.41
44:FL:3:THR:HG22	44:FL:5:ASN:H	1.86	0.41
10:GJ:65:THR:CG2	10:GJ:68:LYS:HE3	2.51	0.41
1:AA:2730:C:O3'	4:AD:174:SER:CB	2.69	0.41
39:DG:113:ASP:HB2	39:DG:119:ARG:CG	2.50	0.41
9:GI:78:LEU:HB3	9:GI:105:LEU:HD23	2.03	0.41
6:GF:137:PHE:HD1	6:GF:138:PRO:HD2	1.86	0.41
34:HB:19:THR:HG23	34:HB:36:LYS:O	2.20	0.41
33:DA:1182:G:H4'	33:DA:1183:U:H5'	2.02	0.41
33:FA:1074:G:N3	33:FA:1102:A:C2	2.89	0.41
6:AF:30:VAL:HG22	6:AF:95:MET:SD	2.60	0.41
33:DA:98:A:H2'	33:DA:99:C:C6	2.56	0.41
18:GR:51:VAL:HB	18:GR:52:PRO:CD	2.51	0.41
33:BA:21:G:H2'	33:BA:22:G:C8	2.55	0.41
34:DB:162:VAL:HG22	34:DB:184:ALA:HB1	2.02	0.41
41:FI:6:TYR:CE1	41:FI:89:GLU:HB2	2.55	0.41
33:FA:1239:A:C2	33:FA:1296:C:N3	2.89	0.41
49:DQ:12:VAL:HG12	49:DQ:13:VAL:N	2.36	0.41
21:CU:84:PHE:O	21:CU:85:ARG:HB3	2.21	0.41
1:EA:1532:A:H3'	1:EA:1533:C:H6	1.86	0.41
16:EP:80:VAL:HG12	16:EP:81:ASP:N	2.36	0.41
34:DB:187:ASP:CG	34:DB:188:THR:H	2.24	0.41
1:AA:666:A:H2'	1:AA:667:U:C6	2.56	0.41
1:GA:2821:A:O2'	1:GA:2826:A:N1	2.47	0.41
35:BC:144:LEU:H	35:BC:144:LEU:HG	1.78	0.41
36:BD:155:VAL:HA	36:BD:158:ALA:HB3	2.02	0.41
1:GA:1794:A:H2'	1:GA:1795:C:H6	1.85	0.41
33:HA:452:A:C8	33:HA:452:A:H3'	2.56	0.41
42:FJ:19:ASP:HA	42:FJ:22:THR:CG2	2.51	0.41
7:AG:104:LEU:HB2	7:AG:112:VAL:CG2	2.51	0.41
10:AJ:84:ILE:HG23	10:AJ:84:ILE:O	2.21	0.41
34:BB:60:ALA:HB2	34:BB:220:VAL:HG12	2.02	0.41
9:AI:58:ILE:CG2	9:AI:60:VAL:HG23	2.50	0.41
1:AA:892:A:C2	1:AA:893:C:N3	2.89	0.41
1:GA:443:A:H1'	1:GA:1201:U:O4'	2.20	0.41
28:A1:33:LEU:N	28:A1:51:ALA:HB3	2.36	0.41
21:GU:84:PHE:O	21:GU:85:ARG:HB3	2.21	0.41
1:GA:1256:G:C6	1:GA:1257:C:N4	2.89	0.41
33:FA:625:U:H4'	48:FP:16:PHE:CD2	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1089:A:O2'	1:CA:1090:A:N7	2.48	0.41
1:AA:10:A:C5	1:AA:11:C:C5	3.08	0.41
32:A5:37:LYS:O	32:A5:38:MET:C	2.58	0.41
16:CP:80:VAL:O	16:CP:81:ASP:HB3	2.21	0.41
33:FA:674:G:N2	43:FK:118:HIS:HB2	2.36	0.41
33:FA:900:A:H2'	33:FA:901:A:O4'	2.21	0.41
32:E5:51:TYR:CE2	32:E5:90:GLY:HA3	2.55	0.41
1:CA:1831:G:C4	1:CA:1832:C:C5	3.09	0.41
1:CA:2832:U:C4	1:CA:2834:G:N2	2.88	0.41
23:GW:70:VAL:C	23:GW:71:LYS:HD2	2.41	0.41
1:AA:2632:A:C2	1:AA:2633:G:N7	2.88	0.41
1:EA:1340:U:H4'	1:EA:1341:G:OP2	2.20	0.41
1:CA:288:U:H3	1:CA:352:A:H61	1.68	0.41
1:EA:2776:A:H4'	1:EA:2777:G:H5''	2.01	0.41
34:BB:189:ASN:OD1	34:BB:190:SER:N	2.53	0.41
1:CA:370:G:C6	1:CA:424:G:C8	3.09	0.41
33:DA:436:C:C2	33:DA:437:U:C5	3.09	0.41
54:DV:318:SER:CB	54:DV:404:ILE:HD11	2.51	0.41
1:CA:336:C:C2	1:CA:337:C:C5	3.08	0.41
37:DE:81:LEU:HB3	37:DE:147:MET:HE1	2.03	0.41
42:HJ:57:VAL:HG22	42:HJ:58:ASN:H	1.85	0.41
54:HV:33:TYR:CE1	54:HV:199:GLY:HA3	2.56	0.41
34:HB:44:LYS:HE3	34:HB:48:MET:HE2	2.03	0.41
1:EA:65:U:O2'	1:EA:456:C:N3	2.47	0.41
1:EA:1906:G:C6	1:EA:1929:G:N2	2.89	0.41
1:CA:2075:U:H2'	1:CA:2238:G:N2	2.35	0.41
33:BA:1137:C:O2	33:BA:1138:G:N2	2.54	0.41
1:EA:2139:U:H4'	1:EA:2151:U:O4	2.21	0.41
33:FA:1371:G:C6	33:FA:1372:U:C4	3.09	0.41
1:EA:1937:A:N7	1:EA:1939:U:H2'	2.36	0.41
54:DV:538:ASN:ND2	54:DV:550:ILE:HG21	2.36	0.41
48:FP:76:LYS:NZ	48:FP:81:ALA:HB3	2.36	0.41
33:FA:1446:A:N1	33:FA:1447:A:C6	2.89	0.41
7:GG:102:ILE:HD11	7:GG:116:LEU:HG	2.02	0.41
33:DA:1043:G:C2	33:DA:1044:A:C5	3.09	0.41
33:DA:1375:A:H4'	39:DG:29:ILE:HD13	2.03	0.41
47:HO:72:ARG:NH2	47:HO:73:LYS:HE2	2.35	0.41
1:EA:1195:G:O2'	1:EA:1226:A:N1	2.40	0.41
33:FA:587:G:C2'	33:FA:588:G:OP2	2.69	0.41
33:BA:827:U:C2	33:BA:870:U:C4	3.09	0.41
1:CA:1269:A:OP2	59:CA:3381:HOH:O	2.22	0.41
43:HK:89:PRO:HB3	53:HU:29:LEU:HD13	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DA:1018:G:O6	33:DA:1019:A:N6	2.53	0.41
1:AA:1111:A:N3	1:AA:1112:G:H1'	2.35	0.41
44:BL:114:ARG:HB3	44:BL:119:VAL:HB	2.03	0.41
44:FL:52:VAL:C	44:FL:67:ILE:CD1	2.89	0.41
54:DV:310:HIS:O	54:DV:312:SER:N	2.53	0.41
1:AA:1582:C:H2'	1:AA:1585:C:H42	1.85	0.41
1:CA:1360:G:C6	1:CA:1372:U:C2	3.09	0.41
51:HS:66:MET:SD	51:HS:74:PHE:HZ	2.42	0.41
33:DA:540:G:C6	33:DA:541:G:C5	3.08	0.41
1:CA:382:A:C2	1:CA:383:C:H1'	2.55	0.41
1:CA:1753:G:N1	1:CA:1756:G:OP2	2.48	0.41
14:EN:82:GLU:O	14:EN:86:ARG:HB2	2.21	0.41
35:DC:23:PHE:CD1	35:DC:24:ALA:N	2.88	0.41
4:GD:112:THR:O	4:GD:195:GLY:HA2	2.20	0.41
33:DA:747:A:C6	33:DA:748:G:C6	3.09	0.41
1:AA:2902:C:C2'	1:AA:2903:U:O5'	2.68	0.41
33:DA:1025:U:H6	33:DA:1025:U:O5'	2.04	0.41
32:E5:136:ILE:HD12	32:E5:136:ILE:H	1.84	0.41
37:FE:48:PHE:CD1	37:FE:48:PHE:C	2.93	0.41
43:DK:113:VAL:HG12	50:DR:73:ARG:NH1	2.36	0.41
1:AA:611:C:C2	1:AA:618:G:N2	2.88	0.41
1:EA:603:A:C8	1:EA:655:A:C6	3.08	0.41
1:EA:1565:C:C5	1:EA:1567:G:C6	3.08	0.41
1:EA:1105:U:H2'	1:EA:1106:G:H8	1.81	0.41
43:DK:15:GLN:HG2	39:HG:139:GLU:CD	2.41	0.41
17:CQ:94:LEU:C	17:CQ:96:ASP:H	2.23	0.41
33:BA:1324:A:H4'	33:BA:1362:A:H4'	2.03	0.41
32:E5:32:GLY:HA2	32:E5:36:ASP:OD2	2.21	0.41
23:CW:18:LYS:HG3	23:CW:19:ARG:H	1.86	0.41
23:EW:22:VAL:CG1	23:EW:25:PHE:CE1	3.04	0.41
32:A5:60:LEU:CD2	32:A5:64:VAL:HG21	2.51	0.41
1:AA:1107:G:OP1	32:A5:59:LEU:N	2.54	0.41
16:CP:50:ARG:H	16:CP:50:ARG:CD	2.33	0.41
7:AG:100:ASN:HB3	4:ED:92:VAL:CG1	2.50	0.41
1:CA:2140:G:O6	1:CA:2152:G:C8	2.73	0.41
33:HA:460:A:N1	33:HA:462:G:C8	2.89	0.41
33:DA:410:G:P	36:DD:26:ARG:HE	2.44	0.41
54:FV:22:GLY:HA2	58:FV:801:GCP:O1A	2.20	0.41
43:BK:93:ARG:HH22	53:BU:20:LYS:HB2	1.85	0.41
33:DA:1493:A:O2'	33:DA:1494:G:OP1	2.32	0.41
1:AA:277:G:C2'	1:AA:278:A:OP2	2.69	0.41
33:FA:1304:G:C6	33:FA:1305:G:N2	2.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:FE:94:VAL:HG11	37:FE:140:THR:CG2	2.50	0.41
1:EA:979:A:H2'	1:EA:982:C:H42	1.86	0.41
4:ED:118:PHE:HZ	14:EN:1:MET:CB	2.34	0.41
11:AK:70:ARG:HD3	11:AK:76:VAL:HG22	2.03	0.41
9:GI:25:PRO:HB3	54:HV:647:SER:CA	2.50	0.41
29:E2:42:LEU:HB3	29:E2:43:THR:HG23	2.01	0.41
33:HA:868:C:N4	33:HA:869:G:C2	2.89	0.41
33:DA:1006:G:H2'	33:DA:1007:U:C6	2.56	0.41
33:FA:1151:A:C2	33:FA:1152:A:C4	3.08	0.41
1:EA:1786:A:C4	1:EA:1938:A:C6	3.09	0.41
32:E5:47:GLU:CG	32:E5:95:LEU:HD21	2.48	0.41
32:E5:132:TYR:O	32:E5:133:GLU:HG3	2.21	0.41
41:BI:11:ARG:HB3	41:BI:16:ALA:HA	2.01	0.41
14:GN:31:HIS:N	14:GN:31:HIS:ND1	2.69	0.41
33:BA:1489:G:C5	33:BA:1490:U:C5	3.09	0.41
33:BA:1492:A:C2'	33:BA:1493:A:C5'	2.98	0.41
46:FN:21:PHE:C	46:FN:23:LYS:H	2.23	0.41
31:E4:4:ARG:O	31:E4:37:GLN:O	2.39	0.41
33:FA:880:C:P	44:FL:5:ASN:HD22	2.44	0.41
1:AA:1735:A:C6	1:AA:1736:U:C5	3.09	0.41
36:FD:116:GLN:NE2	36:FD:120:HIS:NE2	2.69	0.41
45:HM:29:ARG:HH22	45:HM:33:ILE:HD11	1.86	0.41
45:HM:29:ARG:NH1	45:HM:33:ILE:HD11	2.36	0.41
26:GZ:38:GLU:HG3	26:GZ:40:THR:HG22	2.03	0.41
36:BD:91:LEU:N	36:BD:91:LEU:HD12	2.36	0.41
19:CS:29:VAL:HG13	19:CS:55:ILE:HD11	2.02	0.41
1:CA:1732:C:O2'	1:CA:1733:G:H5'	2.21	0.41
7:EG:84:LYS:HB2	7:EG:132:LEU:H	1.86	0.41
1:GA:528:A:H2	1:GA:2043:C:H5'	1.85	0.41
4:CD:118:PHE:O	4:CD:120:GLY:N	2.46	0.41
9:AI:18:ASN:N	9:AI:19:PRO:CD	2.83	0.41
1:AA:1530:G:C6	1:AA:1531:C:C4	3.09	0.41
4:GD:21:SER:H	11:GK:73:ASP:H	1.68	0.41
1:EA:27:G:C4	1:EA:512:G:N2	2.89	0.41
33:FA:1314:C:C5	51:FS:6:LYS:HD3	2.56	0.41
33:DA:69:G:H3'	33:DA:70:U:H6	1.86	0.41
41:DI:101:ALA:HB1	41:DI:103:PHE:CE1	2.56	0.41
33:DA:144:G:N2	33:DA:145:G:H1'	2.35	0.41
4:CD:68:PHE:CE2	4:CD:75:ALA:HB1	2.56	0.41
17:EQ:86:SER:O	17:EQ:88:GLU:N	2.54	0.41
50:BR:34:THR:O	50:BR:37:GLY:N	2.54	0.41
33:FA:250:A:C4'	33:FA:251:G:O5'	2.69	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:31:THR:HG23	15:CO:32:PRO:CD	2.49	0.41
33:DA:465:A:H2'	33:DA:466:A:C8	2.56	0.41
42:HJ:87:LEU:O	42:HJ:91:ASP:OD2	2.39	0.41
16:CP:19:PHE:CZ	16:CP:83:ILE:CD1	3.04	0.41
35:BC:17:PRO:HG2	35:BC:18:TRP:H	1.86	0.41
1:EA:878:A:H3'	1:EA:879:G:C8	2.56	0.41
11:CK:5:GLN:O	11:CK:6:THR:CB	2.68	0.41
11:CK:105:ARG:O	11:CK:108:ARG:HB2	2.21	0.41
6:GF:60:SER:CB	6:GF:88:VAL:HG11	2.51	0.41
21:AU:73:ASN:O	21:AU:74:ALA:HB3	2.21	0.41
12:GL:110:VAL:CG2	12:GL:127:VAL:HB	2.51	0.41
36:BD:158:ALA:O	36:BD:162:ALA:HB2	2.21	0.41
1:CA:1053:C:N3	1:CA:1054:A:N7	2.69	0.41
1:AA:1533:C:H2'	1:AA:1533:C:O2	2.20	0.41
5:AE:147:LEU:HD12	5:AE:149:ILE:HG12	2.03	0.41
33:BA:1330:U:O4	33:BA:1331:G:N1	2.54	0.41
33:BA:1451:U:C2'	33:BA:1452:C:OP1	2.69	0.41
33:BA:1302:C:OP1	33:BA:1302:C:C5	2.74	0.41
25:AY:41:HIS:CD2	25:AY:42:LEU:HD12	2.56	0.41
37:BE:159:LYS:HE2	40:BH:64:LYS:CE	2.51	0.41
35:HC:22:TRP:HB3	35:HC:59:ARG:HB2	2.03	0.41
34:DB:49:PHE:HD1	34:DB:212:TYR:HH	1.66	0.41
4:GD:148:GLN:HB2	4:GD:152:PRO:HG2	2.03	0.41
1:CA:1198:U:O3'	17:CQ:4:LYS:HE3	2.21	0.41
17:CQ:7:VAL:HG23	17:CQ:8:ILE:N	2.36	0.41
1:AA:216:A:C8	1:AA:432:A:C6	3.09	0.41
47:FO:15:PHE:CZ	47:FO:85:LEU:HD11	2.56	0.41
49:HQ:59:VAL:CG2	49:HQ:75:LEU:HD13	2.50	0.41
10:CJ:64:VAL:O	10:CJ:65:THR:CB	2.69	0.41
29:E2:10:LEU:HD21	29:E2:14:ARG:NH1	2.36	0.41
15:AO:33:ARG:HG2	15:AO:34:HIS:CE1	2.56	0.41
40:HH:10:MET:HG3	40:HH:27:MET:SD	2.60	0.41
1:GA:645:C:H2'	1:GA:647:G:N7	2.36	0.41
1:GA:2098:U:H3	1:GA:2191:A:H61	1.67	0.41
1:GA:479:A:HO2'	1:GA:481:G:H8	1.63	0.41
32:A5:39:THR:HA	32:A5:42:ARG:CD	2.51	0.41
14:EN:96:ARG:O	14:EN:113:ILE:HA	2.21	0.41
1:EA:1458:U:H5'	1:EA:1459:G:N3	2.35	0.41
54:HV:488:VAL:HG21	54:HV:661:SER:HB3	2.02	0.41
11:GK:118:LEU:N	11:GK:118:LEU:HD12	2.35	0.41
54:HV:85:ASN:ND2	54:HV:382:ILE:HG13	2.35	0.41
37:BE:132:ASN:HA	37:BE:133:PRO:HD2	1.92	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:67:ILE:HD11	52:BT:71:LYS:CE	2.51	0.41
52:DT:62:ALA:HA	52:DT:67:ILE:HG22	2.02	0.41
1:AA:858:G:H3'	1:AA:859:G:C8	2.55	0.41
7:EG:102:ILE:CG1	7:EG:116:LEU:HD11	2.51	0.41
1:CA:1729:U:C5'	1:CA:1730:C:O5'	2.69	0.41
1:CA:1142:A:C2	1:CA:1144:A:C1'	3.04	0.41
1:CA:1142:A:C4	1:CA:1144:A:C8	3.09	0.41
33:FA:716:A:N3	43:FK:119:ASN:O	2.53	0.41
43:FK:45:ALA:HB3	43:FK:70:CYS:HB2	2.02	0.41
42:DJ:57:VAL:HG22	42:DJ:58:ASN:H	1.85	0.41
1:AA:123:G:C6	1:AA:124:G:C5	3.08	0.41
6:AF:102:LEU:O	6:AF:106:ALA:HB3	2.21	0.41
33:HA:1284:C:C5	33:HA:1285:A:H8	2.39	0.41
1:AA:1537:G:C4	1:AA:1538:G:H1'	2.55	0.41
1:EA:1854:A:C2	1:EA:2087:G:N3	2.89	0.41
6:AF:121:PHE:HZ	6:AF:166:ARG:N	2.18	0.41
38:HF:21:MET:HB3	38:HF:21:MET:HE2	1.84	0.41
52:HT:68:HIS:HB3	52:HT:69:LYS:NZ	2.36	0.41
54:BV:196:ALA:C	54:BV:198:GLN:N	2.74	0.41
6:EF:30:VAL:CG1	6:EF:96:TRP:CH2	3.04	0.41
54:FV:127:TRP:CH2	54:FV:262:ILE:HD13	2.56	0.41
44:HL:63:VAL:HG21	44:HL:95:TYR:CE1	2.55	0.41
54:BV:236:LYS:O	54:BV:241:GLU:HB3	2.21	0.41
21:AU:13:LEU:HD11	21:AU:70:ALA:HB2	2.02	0.41
9:CI:12:VAL:HG21	9:CI:41:PHE:CE1	2.56	0.41
54:DV:30:ILE:HG21	54:DV:86:ILE:HD11	2.03	0.41
11:GK:108:ARG:HD2	11:GK:116:ILE:HD11	2.02	0.41
1:AA:2259:U:C2	1:AA:2427:C:N3	2.89	0.41
5:CE:2:GLU:OE1	5:CE:11:ALA:HB1	2.21	0.41
10:AJ:64:VAL:HG11	10:AJ:68:LYS:HB2	2.02	0.41
1:AA:1140:C:P	10:AJ:68:LYS:HZ3	2.43	0.41
37:BE:57:PRO:O	37:BE:60:ILE:HG12	2.20	0.41
1:EA:278:A:N1	1:EA:362:A:C8	2.89	0.41
48:DP:36:VAL:O	48:DP:36:VAL:HG12	2.19	0.41
33:DA:57:G:C5	33:DA:58:C:C4	3.09	0.41
13:CM:50:ARG:HA	13:CM:53:MET:HE2	2.02	0.41
1:AA:910:A:C4	13:AM:13:HIS:CD2	3.09	0.41
1:EA:1697:G:OP2	1:EA:1698:A:O2'	2.35	0.41
10:CJ:49:ASP:CG	10:CJ:121:LYS:HZ3	2.24	0.41
1:AA:2138:G:N2	1:AA:2151:U:P	2.94	0.41
40:BH:3:MET:CE	40:BH:6:PRO:HA	2.51	0.41
34:FB:9:LEU:HB2	34:FB:42:LEU:CD2	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:HU:14:VAL:CG2	53:HU:16:LEU:CD2	2.99	0.41
51:BS:15:LEU:HD13	51:BS:33:THR:HG21	2.02	0.41
1:GA:2869:G:H2'	1:GA:2870:C:C6	2.56	0.41
41:HI:30:ILE:HA	41:HI:65:ILE:O	2.21	0.41
42:FJ:49:PHE:CE2	46:FN:77:PHE:HZ	2.39	0.41
33:BA:523:A:C2	33:BA:527:G:O6	2.74	0.41
33:DA:1245:C:C4	33:DA:1246:A:N7	2.89	0.41
1:AA:2636:C:H2'	1:AA:2637:U:C6	2.55	0.41
6:AF:50:ASP:OD1	6:AF:50:ASP:N	2.54	0.41
33:BA:1250:A:C4	33:BA:1287:A:C6	3.09	0.41
33:HA:949:A:H1'	33:HA:1364:U:C5	2.56	0.41
43:HK:23:ILE:HD11	43:HK:86:VAL:HG22	2.01	0.41
1:AA:2838:G:H2'	1:AA:2839:G:O4'	2.21	0.41
33:BA:742:G:N2	33:BA:743:A:C4	2.89	0.41
22:EV:80:HIS:HD2	22:EV:83:LYS:N	2.18	0.41
51:FS:40:ILE:HG12	51:FS:71:LEU:CD2	2.51	0.41
33:FA:139:A:H2'	33:FA:140:U:C6	2.56	0.41
22:GV:62:THR:HA	22:GV:71:LYS:HA	2.03	0.41
4:GD:91:THR:O	4:GD:93:GLY:N	2.49	0.41
3:EC:234:GLY:O	3:EC:235:GLU:HB2	2.21	0.41
10:AJ:12:LYS:O	10:AJ:13:ARG:HB2	2.21	0.41
33:DA:1016:A:N7	33:DA:1017:U:H1'	2.36	0.41
33:DA:1015:G:N2	33:DA:1218:C:O2	2.51	0.41
33:DA:591:U:H2'	33:DA:592:G:H8	1.86	0.41
12:CL:23:ILE:N	12:CL:23:ILE:CD1	2.84	0.41
23:AW:58:LEU:HD23	23:AW:79:ILE:HG13	2.02	0.41
47:BO:3:LEU:HD23	47:BO:8:THR:HG22	2.01	0.41
1:GA:2482:A:C5	1:GA:2483:C:C5	3.08	0.41
35:FC:23:PHE:CD1	35:FC:24:ALA:N	2.89	0.41
16:AP:90:ALA:HB2	16:AP:112:ARG:HA	2.01	0.41
33:DA:968:A:H4'	33:DA:969:A:OP2	2.21	0.41
38:BF:68:GLN:HA	38:BF:71:ILE:HG22	2.03	0.41
20:AT:26:LYS:O	20:AT:27:SER:CB	2.68	0.41
1:AA:919:U:H2'	1:AA:920:A:O4'	2.21	0.41
1:AA:643:A:N1	1:AA:2369:A:O2'	2.51	0.41
1:EA:308:G:N2	1:EA:477:A:C8	2.89	0.41
54:HV:504:LYS:HA	54:HV:516:GLY:O	2.20	0.41
15:CO:7:ARG:HA	15:CO:10:ARG:NH2	2.36	0.41
5:GE:60:TRP:NE1	5:GE:70:SER:HB3	2.36	0.41
16:GP:80:VAL:O	16:GP:81:ASP:HB3	2.20	0.41
33:FA:200:G:N2	33:FA:218:U:C2	2.89	0.41
1:CA:1999:C:H2'	1:CA:2000:C:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:GN:98:LEU:HD22	27:G0:42:ILE:HD11	2.03	0.41
21:EU:34:ILE:HG23	21:EU:61:GLU:HB3	2.02	0.41
54:HV:498:VAL:CG2	54:HV:608:ALA:HB2	2.51	0.41
1:GA:2539:C:H5'	31:G4:3:VAL:HG21	2.02	0.41
1:GA:2690:U:C4	1:GA:2873:A:N1	2.88	0.41
2:AB:74:U:O2	22:AV:29:ILE:HD13	2.20	0.41
1:EA:884:U:H2'	1:EA:885:C:H5'	2.03	0.41
1:GA:941:A:H2'	1:GA:942:G:O4'	2.21	0.41
36:BD:17:THR:HG22	36:BD:18:ASP:N	2.36	0.41
1:EA:2467:C:H1'	13:EM:122:ALA:HB1	2.03	0.41
39:DG:50:LEU:CD1	39:DG:61:ALA:HB1	2.50	0.41
33:HA:200:G:N2	33:HA:218:U:C2	2.89	0.41
33:DA:1156:G:HO2'	33:DA:1180:A:N6	2.18	0.41
1:GA:960:A:H5''	1:GA:961:C:OP2	2.21	0.41
33:BA:588:G:C8	33:BA:753:A:C2	3.09	0.41
1:CA:936:A:C6	1:CA:937:C:N4	2.89	0.41
1:AA:1239:G:H2'	1:AA:1240:U:O4'	2.21	0.41
3:AC:77:VAL:HG23	3:AC:111:ALA:HA	2.02	0.41
1:CA:65:U:H2'	1:CA:66:C:C6	2.56	0.41
34:HB:217:ALA:O	34:HB:221:ARG:HB2	2.21	0.41
13:AM:69:PRO:HA	13:AM:94:ALA:HB2	2.02	0.41
2:EB:29:A:H2'	2:EB:30:C:O4'	2.21	0.41
1:EA:2201:G:H2'	1:EA:2202:U:O4'	2.20	0.41
3:CC:160:TYR:C	3:CC:160:TYR:CD1	2.94	0.41
34:DB:170:ILE:H	34:DB:170:ILE:HD12	1.85	0.41
1:AA:521:U:H2'	1:AA:522:A:C8	2.56	0.41
33:FA:728:A:N6	33:FA:729:A:N6	2.69	0.41
51:DS:40:ILE:HB	51:DS:66:MET:O	2.21	0.41
1:EA:563:A:C6	1:EA:564:C:C4	3.09	0.41
33:HA:429:U:O3'	36:HD:22:LYS:NZ	2.54	0.41
33:BA:519:C:N4	33:BA:520:A:C6	2.89	0.41
3:EC:184:GLU:O	3:EC:185:ALA:HB3	2.21	0.41
10:EJ:102:GLU:HG3	10:EJ:124:VAL:HG21	2.02	0.41
1:EA:2788:C:H2'	1:EA:2789:C:C6	2.56	0.41
9:EI:70:THR:OG1	9:EI:71:LYS:N	2.54	0.41
35:BC:97:VAL:HB	35:BC:98:PRO:HD2	2.02	0.41
47:DO:26:GLU:OE2	47:DO:77:ARG:HD2	2.20	0.41
54:FV:266:CYS:SG	54:FV:267:GLY:N	2.94	0.41
1:AA:815:C:C2	1:AA:1193:G:C2	3.09	0.41
1:GA:2687:U:H2'	1:GA:2688:G:O4'	2.21	0.41
1:EA:980:A:C4	1:EA:1136:G:O4'	2.74	0.41
33:DA:892:A:C6	33:DA:893:C:C4	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:2632:A:H61	1:GA:2786:U:H3	1.69	0.41
33:FA:676:A:H1'	43:FK:117:PRO:HB3	2.02	0.41
38:FF:20:GLY:O	38:FF:23:GLU:HB3	2.21	0.41
43:FK:72:ASP:O	43:FK:73:ALA:HB3	2.20	0.41
2:GB:14:U:O2	2:GB:107:G:H4'	2.20	0.41
1:AA:1760:C:H2'	1:AA:1761:C:O4'	2.21	0.41
4:AD:34:VAL:HG22	4:AD:94:GLN:H	1.85	0.41
1:EA:370:G:O2'	1:EA:424:G:OP1	2.33	0.41
1:AA:1676:A:H2'	1:AA:1677:A:O4'	2.21	0.41
4:ED:121:THR:HB	4:ED:127:PHE:CD2	2.55	0.41
12:GL:7:SER:HB2	12:GL:8:PRO:HD2	2.03	0.41
1:EA:258:G:H1'	12:EL:104:GLN:NE2	2.36	0.41
33:HA:672:U:H2'	33:HA:673:A:C8	2.55	0.41
33:FA:335:C:H2'	33:FA:336:A:C8	2.55	0.41
36:DD:151:LYS:HA	36:DD:155:VAL:HG13	2.03	0.41
1:AA:690:G:H2'	1:AA:691:C:C6	2.56	0.41
1:GA:2447:G:C5	1:GA:2500:U:C5	3.08	0.41
15:GO:24:THR:HG22	15:GO:42:PRO:HD3	2.03	0.41
33:DA:473:U:C2	33:DA:474:G:C8	3.08	0.41
15:AO:41:ALA:O	15:AO:44:GLY:N	2.46	0.41
44:DL:102:LEU:CD1	44:DL:102:LEU:N	2.84	0.41
26:GZ:5:LYS:N	26:GZ:5:LYS:HD2	2.36	0.41
4:AD:14:ILE:HG13	4:AD:14:ILE:O	2.20	0.41
4:GD:45:TYR:CD1	4:GD:45:TYR:N	2.89	0.41
14:CN:10:LEU:HD22	14:CN:10:LEU:N	2.36	0.41
44:BL:103:ASP:OD1	44:BL:103:ASP:N	2.52	0.41
1:GA:1332:G:H2'	1:GA:1332:G:N3	2.35	0.41
33:DA:1009:U:H3	33:DA:1020:G:H1	1.69	0.41
25:CY:17:GLU:HB2	25:CY:53:VAL:HG11	2.03	0.41
43:FK:23:ILE:HD11	43:FK:86:VAL:HG22	2.02	0.41
1:EA:2502:G:H5''	1:EA:2503:A:H5''	2.02	0.41
1:CA:973:A:C8	1:CA:1188:U:C2	3.09	0.41
18:AR:83:TYR:C	18:AR:83:TYR:CD1	2.95	0.41
1:CA:2105:U:H5'	1:CA:2105:U:H6	1.86	0.41
32:A5:31:ARG:HD3	32:A5:31:ARG:HA	1.84	0.41
1:AA:2502:G:C5'	1:AA:2503:A:H5''	2.51	0.41
23:EW:50:VAL:HB	23:EW:61:LYS:HD2	2.03	0.41
34:FB:20:ARG:O	34:FB:21:TYR:HB2	2.21	0.41
32:A5:58:THR:HB	32:A5:82:ILE:HB	2.03	0.41
1:AA:1084:A:H5'	32:A5:55:VAL:HA	2.03	0.41
33:BA:686:U:C4	33:BA:687:A:N6	2.89	0.41
33:DA:1028:C:C5	33:DA:1029:U:C4	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1616:A:H4'	1:GA:1617:C:OP2	2.20	0.41
1:EA:1076:C:O2'	9:EI:92:PRO:HB3	2.21	0.41
23:CW:53:GLY:O	23:CW:56:HIS:N	2.53	0.41
6:AF:169:LEU:HG	6:AF:174:PHE:CD2	2.56	0.41
41:HI:57:MET:CG	41:HI:58:VAL:H	2.34	0.41
33:BA:1469:C:H2'	33:BA:1470:U:O4'	2.21	0.41
1:EA:2646:C:H2'	1:EA:2647:U:O4'	2.21	0.41
1:AA:2845:U:O3'	16:AP:52:ARG:NH1	2.54	0.41
42:FJ:37:ARG:NH2	42:FJ:77:VAL:HG21	2.36	0.41
1:EA:296:U:H2'	1:EA:297:G:C8	2.57	0.41
1:EA:958:U:H5''	1:EA:959:A:O5'	2.21	0.41
6:EF:33:ILE:CG2	6:EF:153:ILE:CD1	2.98	0.41
33:FA:1451:U:H5''	33:FA:1452:C:C5	2.55	0.41
52:FT:69:LYS:HB2	52:FT:70:ASN:H	1.80	0.41
35:FC:77:ILE:O	35:FC:83:ASP:HB2	2.20	0.41
19:CS:29:VAL:HG21	19:CS:107:VAL:HG21	2.02	0.41
36:DD:58:LYS:HD3	36:DD:203:LEU:HD23	2.03	0.41
32:A5:93:ALA:HB3	32:A5:95:LEU:HD23	2.03	0.41
9:GI:82:ALA:HB1	9:GI:108:ILE:HD13	2.03	0.41
38:FF:92:THR:O	38:FF:93:LYS:HG2	2.20	0.41
47:FO:35:GLN:NE2	47:FO:39:LEU:HD21	2.36	0.41
28:C1:46:VAL:HG12	28:C1:47:ILE:N	2.36	0.41
34:DB:70:GLY:CA	34:DB:163:ILE:CG2	2.98	0.41
33:DA:71:A:C2	33:DA:72:A:C4	3.09	0.41
6:EF:147:ARG:HG3	6:EF:149:ARG:N	2.36	0.41
6:GF:134:GLN:CG	6:GF:135:ILE:H	2.34	0.41
6:GF:134:GLN:OE1	6:GF:149:ARG:HB3	2.21	0.41
5:GE:170:ARG:NH2	5:GE:179:SER:OG	2.54	0.41
18:CR:14:VAL:HG11	18:CR:98:ILE:HG13	2.03	0.41
1:EA:1730:C:N4	35:HC:103:ILE:O	2.49	0.41
18:ER:49:ILE:HD12	18:ER:53:PHE:H	1.85	0.41
1:GA:2108:A:N7	1:GA:2180:U:O2	2.54	0.41
12:AL:81:ASP:O	12:AL:82:LEU:HD22	2.21	0.41
54:HV:585:ASP:O	54:HV:586:VAL:CB	2.68	0.41
49:DQ:12:VAL:HG12	49:DQ:14:SER:H	1.85	0.41
33:BA:601:G:C2	33:BA:602:A:C4	3.09	0.41
44:HL:25:GLU:HB2	44:HL:27:CYS:SG	2.61	0.41
8:CH:2:GLN:CB	8:CH:39:ALA:HB3	2.51	0.41
1:GA:2406:A:N3	12:GL:69:ARG:NH2	2.68	0.41
33:BA:722:G:O2'	33:BA:723:U:H2'	2.20	0.41
33:BA:724:G:N2	33:BA:725:G:H1'	2.36	0.41
1:GA:1386:C:H2'	1:GA:1387:A:H8	1.82	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2615:U:P	59:AA:3740:HOH:O	2.79	0.41
1:CA:1341:G:OP1	1:CA:1397:U:N3	2.50	0.41
17:CQ:5:ARG:HA	17:CQ:8:ILE:HD11	2.02	0.41
36:BD:30:THR:HG22	36:BD:31:LYS:N	2.36	0.41
35:DC:42:TYR:HE2	35:DC:87:LEU:HD22	1.86	0.41
33:DA:1293:C:H2'	33:DA:1294:G:O4'	2.21	0.41
11:AK:80:ASP:CB	16:AP:67:GLU:HG3	2.51	0.41
33:DA:661:G:C2	33:DA:745:G:C2	3.09	0.41
1:CA:2795:C:H2'	1:CA:2796:U:H6	1.85	0.41
53:FU:12:PHE:CE2	53:FU:14:VAL:O	2.74	0.41
5:CE:143:LEU:HB3	5:CE:146:VAL:HG11	2.01	0.41
33:DA:623:C:C4	33:DA:624:C:C5	3.09	0.41
12:GL:46:VAL:HG13	12:GL:50:PHE:HB3	2.03	0.41
36:DD:98:LEU:HB2	36:DD:135:TYR:HB3	2.03	0.41
32:A5:123:ILE:HG12	32:A5:124:ASP:N	2.36	0.41
44:HL:36:ARG:HD3	44:HL:38:TYR:CE1	2.56	0.41
33:HA:701:U:H4'	33:HA:702:A:O5'	2.20	0.41
41:DI:120:LYS:CG	41:DI:123:ARG:HB3	2.51	0.41
1:CA:2070:A:C2'	1:CA:2071:A:H5'	2.51	0.41
20:CT:70:HIS:HB3	20:CT:73:ARG:O	2.20	0.41
51:HS:63:THR:CG2	51:HS:64:ASP:N	2.84	0.41
13:EM:67:VAL:HG11	13:EM:102:LEU:HD12	2.03	0.41
1:GA:2070:A:C2'	1:GA:2071:A:H5'	2.51	0.41
4:ED:45:TYR:CD1	4:ED:45:TYR:N	2.89	0.41
34:FB:26:MET:HE3	34:FB:29:PHE:CD2	2.56	0.41
33:HA:1193:G:P	35:HC:167:TRP:HH2	2.45	0.41
1:EA:60:G:C6	1:EA:74:A:N6	2.89	0.41
1:AA:722:A:H2'	1:AA:723:C:O4'	2.21	0.41
1:AA:2207:C:C2	1:AA:2208:C:C5	3.09	0.41
40:BH:13:ARG:HH11	40:BH:27:MET:CB	2.33	0.41
9:CI:101:SER:CB	9:CI:140:GLU:HB3	2.51	0.41
2:EB:32:U:C2	2:EB:51:G:N2	2.89	0.41
33:FA:1174:G:C2	33:FA:1175:G:C8	3.08	0.41
38:HF:74:LEU:HG	38:HF:78:PHE:CZ	2.56	0.41
2:CB:111:U:H2'	2:CB:112:G:C8	2.56	0.41
43:BK:72:ASP:O	43:BK:73:ALA:HB3	2.21	0.41
24:EX:40:GLU:O	24:EX:43:LYS:HD2	2.20	0.41
1:CA:2145:C:H5'	1:CA:2147:A:OP1	2.21	0.41
20:CT:8:LEU:HD23	20:CT:46:ALA:HA	2.02	0.41
33:BA:1251:A:H2'	33:BA:1252:A:O4'	2.21	0.41
33:BA:1041:G:C2	33:BA:1042:A:C5	3.08	0.41
8:EH:15:LEU:N	8:EH:15:LEU:CD2	2.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1240:U:P	59:CA:3695:HOH:O	2.79	0.41
33:DA:1218:C:H2'	33:DA:1219:A:C8	2.56	0.41
1:CA:226:A:C6	1:CA:227:A:C6	3.09	0.41
1:CA:225:C:C4	1:CA:226:A:C8	3.09	0.41
44:BL:86:ARG:NH2	44:BL:88:LYS:HG3	2.36	0.41
1:AA:1266:G:C8	19:AS:15:GLN:NE2	2.89	0.41
36:HD:125:VAL:O	36:HD:127:GLY:N	2.49	0.41
33:HA:707:U:H2'	33:HA:708:C:C6	2.55	0.41
4:GD:142:VAL:HB	4:GD:143:PRO:HD2	2.04	0.41
33:DA:774:G:C6	33:DA:775:G:C5	3.09	0.41
20:AT:17:SER:H	20:AT:21:SER:CB	2.34	0.41
36:BD:89:ASN:O	36:BD:93:LEU:HD22	2.21	0.41
42:FJ:50:THR:HB	42:FJ:64:GLN:HG2	2.02	0.41
33:DA:781:A:C3'	33:DA:782:A:H5'	2.51	0.41
54:BV:407:GLU:O	54:BV:408:ARG:CB	2.69	0.41
33:HA:263:A:OP1	52:HT:74:ARG:NH1	2.49	0.41
41:HI:35:LEU:HG	41:HI:36:GLU:N	2.36	0.41
33:FA:662:U:H2'	33:FA:663:A:C8	2.56	0.41
1:AA:2591:C:OP1	3:AC:237:ARG:HG3	2.21	0.41
33:HA:33:A:H2'	33:HA:34:C:C6	2.56	0.41
54:FV:31:LEU:HA	54:FV:34:THR:HG22	2.02	0.41
37:FE:24:THR:HA	37:FE:29:ARG:HA	2.03	0.41
39:FG:103:TRP:CH2	39:FG:141:VAL:HG21	2.56	0.41
33:HA:26:A:N6	33:HA:558:G:O2'	2.47	0.41
4:AD:105:LYS:HA	4:AD:177:VAL:HG13	2.02	0.41
27:G0:54:ILE:HG23	27:G0:56:LYS:HE3	2.03	0.41
1:EA:1149:G:H2'	1:EA:1150:C:C6	2.55	0.41
11:GK:7:MET:SD	11:GK:20:MET:HB2	2.61	0.41
1:EA:2184:A:H2'	1:EA:2185:U:C5	2.55	0.41
1:CA:738:G:C6	1:CA:739:A:C2	3.09	0.41
54:DV:90:PRO:HG2	54:DV:98:GLU:HB2	2.02	0.41
39:HG:75:VAL:HG11	39:HG:144:MET:HG3	2.01	0.41
1:EA:1434:A:H2'	1:EA:1435:G:C8	2.55	0.41
18:GR:90:ARG:O	18:GR:91:GLN:HB3	2.21	0.41
9:AI:91:LYS:HG2	9:AI:97:VAL:HG21	2.03	0.41
21:AU:95:PHE:HE1	21:AU:102:ILE:HB	1.86	0.41
1:CA:296:U:H2'	1:CA:297:G:C8	2.55	0.41
13:GM:4:PRO:CG	13:GM:70:ASP:HA	2.51	0.41
1:AA:751:A:C6	1:AA:789:A:C5	3.09	0.41
1:CA:1842:G:H2'	1:CA:1843:C:C6	2.56	0.41
38:FF:53:LYS:O	38:FF:54:LEU:HB2	2.20	0.41
53:DU:25:LYS:HG2	53:DU:26:ALA:H	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:1180:U:H2'	1:GA:1180:U:O2	2.21	0.41
54:FV:29:ARG:HA	54:FV:29:ARG:NH1	2.36	0.41
16:EP:24:THR:O	16:EP:24:THR:OG1	2.37	0.41
2:EB:33:G:C4	2:EB:50:A:C2	3.09	0.41
1:GA:1954:G:N1	1:GA:1986:C:OP1	2.44	0.41
25:CY:9:LYS:O	25:CY:12:GLU:HB2	2.21	0.41
54:DV:193:TRP:CH2	54:DV:276:GLN:HB2	2.56	0.41
10:EJ:44:TYR:CE1	17:EQ:59:LEU:HD11	2.56	0.40
17:CQ:60:TRP:O	17:CQ:63:ARG:HG3	2.21	0.40
1:CA:1354:A:C8	1:CA:1355:G:C8	3.09	0.40
1:CA:2107:G:C2	1:CA:2108:A:H1'	2.57	0.40
17:AQ:60:TRP:O	17:AQ:63:ARG:HG3	2.21	0.40
17:CQ:75:TYR:CD1	17:CQ:75:TYR:C	2.94	0.40
32:A5:62:ARG:O	32:A5:65:GLU:N	2.54	0.40
1:AA:1270:C:H5''	1:AA:1271:G:O5'	2.21	0.40
33:BA:704:A:C5	33:BA:705:G:N7	2.88	0.40
33:DA:1491:G:H2'	55:DW:6:5OH:O	2.21	0.40
46:BN:93:ILE:HG21	46:BN:96:LEU:HD22	2.03	0.40
54:DV:560:GLN:NE2	54:DV:598:SER:CB	2.84	0.40
1:GA:2025:C:H2'	1:GA:2026:U:C6	2.56	0.40
1:GA:1162:G:C6	1:GA:1163:G:N7	2.89	0.40
36:FD:34:ILE:O	36:FD:35:GLU:CB	2.69	0.40
1:EA:2134:A:H3'	1:EA:2134:A:OP1	2.21	0.40
6:AF:151:LEU:HD12	6:AF:152:ASP:N	2.37	0.40
23:AW:30:VAL:O	23:AW:30:VAL:HG22	2.20	0.40
14:CN:71:ARG:HG2	14:CN:71:ARG:HH21	1.86	0.40
54:BV:75:MET:HG2	54:BV:280:ASP:OD2	2.21	0.40
34:FB:32:GLY:O	34:FB:33:ALA:CB	2.69	0.40
1:CA:1279:G:O2'	1:CA:1280:G:H5'	2.20	0.40
23:GW:49:ASN:HB2	23:GW:60:ALA:HA	2.03	0.40
46:FN:25:ALA:O	46:FN:28:LYS:CG	2.69	0.40
45:FM:80:LEU:HD11	45:FM:87:ARG:HH21	1.87	0.40
1:CA:2747:G:O2'	7:CG:66:THR:HG22	2.21	0.40
1:AA:1740:G:H2'	1:AA:1741:C:O4'	2.21	0.40
45:HM:9:ILE:O	45:HM:9:ILE:HG13	2.21	0.40
45:HM:33:ILE:HD13	45:HM:59:GLU:HB3	2.04	0.40
5:GE:175:ILE:HD11	5:GE:180:LEU:HD11	2.02	0.40
4:AD:107:VAL:H	4:AD:206:ALA:H	1.69	0.40
3:AC:255:LYS:C	3:AC:257:ARG:H	2.24	0.40
9:GI:85:ILE:H	9:GI:100:ILE:HD12	1.85	0.40
7:EG:84:LYS:CB	7:EG:132:LEU:H	2.33	0.40
33:BA:716:A:C6	33:BA:717:U:N3	2.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:9:G:OP2	37:FE:126:LYS:CE	2.69	0.40
28:C1:7:LYS:HE3	30:C3:33:THR:CG2	2.48	0.40
6:AF:134:GLN:CG	6:AF:140:ILE:HG12	2.50	0.40
18:ER:49:ILE:HG22	18:ER:53:PHE:C	2.41	0.40
41:DI:11:ARG:HA	41:DI:78:ALA:CB	2.51	0.40
33:FA:1464:U:H2'	33:FA:1465:A:C8	2.57	0.40
20:CT:54:GLU:HG3	20:CT:88:LYS:H	1.86	0.40
49:BQ:12:VAL:HG13	49:BQ:21:ILE:HG13	2.03	0.40
36:FD:72:PHE:CZ	36:FD:200:ILE:CD1	3.04	0.40
9:EI:58:ILE:HG22	9:EI:59:THR:N	2.36	0.40
28:E1:50:GLU:HG2	28:E1:51:ALA:N	2.37	0.40
11:CK:71:ARG:HB3	11:CK:72:PRO:HD2	2.03	0.40
33:FA:1118:U:H1'	33:FA:1179:A:C4	2.56	0.40
33:DA:844:G:H21	33:DA:845:A:N6	2.20	0.40
36:BD:165:ARG:O	36:BD:167:LYS:N	2.55	0.40
20:ET:54:GLU:HB2	20:ET:88:LYS:HB2	2.02	0.40
1:CA:1486:U:H2'	1:CA:1487:U:C6	2.56	0.40
24:CX:34:SER:HA	24:CX:48:LEU:O	2.20	0.40
39:DG:145:ALA:C	39:DG:147:ALA:N	2.74	0.40
33:BA:1451:U:H5''	33:BA:1452:C:H5	1.86	0.40
3:AC:143:VAL:C	3:AC:151:GLY:HA2	2.42	0.40
15:AO:7:ARG:HA	15:AO:10:ARG:HH22	1.86	0.40
1:EA:1001:A:H2'	1:EA:1002:G:O4'	2.21	0.40
20:ET:28:ASN:HA	20:ET:91:GLN:OE1	2.21	0.40
33:FA:8:A:N6	36:FD:202:GLU:O	2.49	0.40
1:AA:1196:C:H2'	1:AA:1197:G:C8	2.56	0.40
1:GA:2394:C:P	30:G3:29:ARG:HH21	2.44	0.40
16:EP:96:LEU:HB3	16:EP:99:LEU:CD2	2.50	0.40
1:AA:1339:G:H21	1:AA:1603:A:H1'	1.86	0.40
1:GA:1866:A:H8	1:GA:1866:A:O5'	2.04	0.40
1:CA:484:C:H2'	1:CA:485:C:H6	1.87	0.40
3:GC:259:ASN:O	3:GC:260:LYS:HB2	2.21	0.40
11:GK:80:ASP:HB2	16:GP:67:GLU:HG3	2.03	0.40
33:BA:727:G:N2	33:BA:731:G:C4	2.89	0.40
9:EI:33:ASN:HB3	9:EI:65:SER:HA	2.02	0.40
52:HT:62:ALA:HB1	52:HT:69:LYS:H	1.84	0.40
20:ET:20:ALA:O	20:ET:24:MET:HB2	2.20	0.40
9:CI:104:GLN:O	9:CI:105:LEU:HB2	2.20	0.40
1:AA:178:G:C6	1:AA:179:C:C5	3.08	0.40
33:FA:1374:A:O3'	39:FG:28:ASN:ND2	2.51	0.40
34:DB:42:LEU:HG	34:DB:43:GLU:N	2.37	0.40
33:BA:8:A:N7	36:BD:206:LYS:HB3	2.35	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2425:A:H5''	1:AA:2427:C:O4'	2.20	0.40
28:E1:16:THR:HB	28:E1:41:VAL:HG21	2.02	0.40
33:DA:276:G:C5	33:DA:277:C:C5	3.09	0.40
1:AA:1341:G:C6	20:AT:84:TYR:CE1	3.10	0.40
7:AG:22:VAL:HG22	7:AG:36:LEU:CD1	2.51	0.40
4:GD:121:THR:HB	4:GD:127:PHE:CD2	2.56	0.40
6:CF:148:VAL:HG23	6:CF:149:ARG:H	1.86	0.40
1:EA:1446:C:H2'	1:EA:1447:C:H6	1.85	0.40
33:DA:1106:G:O3'	35:DC:172:ARG:HG3	2.22	0.40
17:AQ:46:TYR:CZ	17:AQ:50:ARG:NH2	2.89	0.40
33:DA:1244:G:C6	33:DA:1245:C:C4	3.08	0.40
8:AH:4:ILE:HD11	8:AH:18:GLN:HE21	1.85	0.40
1:CA:2687:U:H2'	1:CA:2688:G:O4'	2.22	0.40
1:AA:1623:G:C6	1:AA:1624:U:C4	3.09	0.40
8:CH:38:PRO:HB2	8:CH:40:THR:HG23	2.03	0.40
54:HV:188:MET:HE3	54:HV:218:TRP:CD1	2.57	0.40
16:GP:85:VAL:HG13	16:GP:86:LYS:N	2.35	0.40
1:GA:1863:G:H4'	1:GA:2411:A:H4'	2.02	0.40
1:CA:936:A:H2'	1:CA:937:C:C6	2.56	0.40
1:EA:2314:A:H2'	1:EA:2315:G:C8	2.56	0.40
1:GA:1081:U:O3'	9:GI:118:GLY:HA2	2.22	0.40
1:GA:2843:G:C2	1:GA:2844:G:C4	3.09	0.40
1:GA:1456:G:C5	1:GA:1457:U:C5	3.09	0.40
4:GD:69:ALA:HA	4:GD:73:VAL:CG1	2.50	0.40
1:EA:941:A:H2'	1:EA:942:G:O4'	2.21	0.40
24:CX:46:VAL:HG11	24:CX:77:TYR:CD1	2.56	0.40
1:GA:2580:U:C5	1:GA:2581:G:C6	3.08	0.40
54:BV:131:ASN:OD1	54:BV:137:ARG:NH2	2.46	0.40
44:HL:99:ARG:HB2	44:HL:117:TYR:HA	2.03	0.40
33:FA:1328:C:H5''	45:FM:28:THR:HG21	2.03	0.40
45:BM:95:LEU:C	45:BM:109:ARG:HG2	2.42	0.40
1:AA:979:A:H2'	1:AA:982:C:H42	1.86	0.40
19:GS:36:LEU:HD23	19:GS:48:LYS:HA	2.03	0.40
24:CX:6:VAL:HG22	24:CX:7:THR:HG23	2.03	0.40
11:AK:1:MET:HE2	11:AK:32:TYR:CE1	2.56	0.40
33:HA:1185:G:C6	33:HA:1186:G:C5	3.09	0.40
8:CH:41:LYS:O	8:CH:44:ILE:HG12	2.21	0.40
30:A3:3:ILE:HG21	30:A3:62:PRO:HG3	2.03	0.40
1:AA:741:U:C4	1:AA:757:G:N1	2.89	0.40
33:HA:920:U:H2'	33:HA:921:U:C6	2.56	0.40
1:CA:1630:A:N1	1:CA:1637:A:C6	2.89	0.40
11:GK:52:VAL:CG1	11:GK:95:ILE:CD1	3.00	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GA:672:C:H42	1:GA:808:G:H1	1.68	0.40
25:EY:30:MET:O	25:EY:34:SER:N	2.51	0.40
35:FC:117:ALA:HB2	35:FC:200:VAL:CG1	2.50	0.40
1:EA:2097:A:C6	1:EA:2098:U:C4	3.10	0.40
1:EA:1893:C:C5	1:EA:1894:C:C5	3.09	0.40
36:BD:142:VAL:HG12	36:BD:181:THR:OG1	2.21	0.40
5:AE:47:LYS:HB3	5:AE:51:GLU:HG3	2.03	0.40
13:AM:66:ARG:NH1	13:AM:104:GLU:OE1	2.53	0.40
33:BA:216:U:H2'	33:BA:217:C:C6	2.56	0.40
1:CA:579:G:OP1	59:CA:3277:HOH:O	2.22	0.40
20:ET:12:ARG:HG2	20:ET:12:ARG:HH11	1.86	0.40
1:EA:830:G:H4'	1:EA:831:G:OP2	2.22	0.40
15:GO:53:THR:HB	15:GO:65:THR:HG21	2.03	0.40
9:AI:93:ASN:HB2	9:AI:135:MET:HE1	2.02	0.40
32:E5:59:LEU:HD23	32:E5:62:ARG:NE	2.32	0.40
1:AA:2297:A:N1	1:AA:2321:U:C5	2.89	0.40
1:GA:945:A:C4	1:GA:2448:A:C2	3.10	0.40
23:AW:23:LYS:HE2	23:AW:24:ARG:HB3	2.03	0.40
1:GA:923:G:C1'	23:GW:23:LYS:HD3	2.43	0.40
32:A5:54:VAL:O	32:A5:55:VAL:C	2.59	0.40
1:AA:760:G:C6	1:AA:761:A:N3	2.89	0.40
36:DD:35:GLU:C	36:DD:37:ALA:H	2.24	0.40
1:CA:954:G:C2	1:CA:964:C:O2	2.75	0.40
1:GA:1058:U:H2'	1:GA:1059:G:H8	1.86	0.40
1:AA:830:G:C4	1:AA:2448:A:C6	3.09	0.40
46:HN:28:LYS:HA	46:HN:31:ILE:HB	2.03	0.40
6:AF:18:GLU:HB3	6:AF:19:PHE:CE1	2.56	0.40
1:CA:980:A:C5	1:CA:981:A:C6	3.09	0.40
1:CA:620:G:H4'	1:CA:621:A:O5'	2.22	0.40
1:GA:137:U:O2'	1:GA:138:U:P	2.74	0.40
42:FJ:35:GLN:O	42:FJ:36:VAL:CB	2.69	0.40
51:DS:36:ARG:HE	51:DS:72:GLY:HA3	1.87	0.40
1:CA:560:C:O2	17:CQ:47:ARG:NH1	2.52	0.40
53:BU:12:PHE:CG	53:BU:13:ASP:N	2.88	0.40
15:GO:2:ASP:OD1	15:GO:3:LYS:N	2.54	0.40
33:BA:1491:G:H5'	33:BA:1492:A:OP1	2.21	0.40
33:FA:980:C:C5	33:FA:981:U:C2	3.10	0.40
1:GA:880:G:C2	1:GA:898:C:H1'	2.55	0.40
45:HM:57:ARG:O	45:HM:61:ALA:N	2.54	0.40
6:AF:59:ILE:HD12	6:AF:139:GLU:HB2	2.03	0.40
4:ED:68:PHE:O	4:ED:73:VAL:HG12	2.22	0.40
1:GA:1072:C:O2	1:GA:1072:C:H2'	2.19	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:GR:38:VAL:O	18:GR:53:PHE:HA	2.21	0.40
1:AA:2478:A:OP2	31:A4:2:LYS:HE3	2.22	0.40
52:HT:85:LYS:C	52:HT:87:ALA:H	2.25	0.40
38:FF:42:TRP:HE3	38:FF:45:ARG:HH21	1.69	0.40
36:FD:192:SER:O	36:FD:193:ALA:HB2	2.20	0.40
24:EX:68:ALA:C	24:EX:69:GLU:O	2.59	0.40
1:GA:2422:C:H2'	1:GA:2424:C:C6	2.56	0.40
33:BA:144:G:H2'	33:BA:145:G:O4'	2.22	0.40
20:GT:26:LYS:O	20:GT:27:SER:CB	2.69	0.40
1:GA:2311:A:H1'	6:GF:84:ILE:HD11	2.04	0.40
16:CP:19:PHE:O	16:CP:20:ARG:CB	2.69	0.40
49:FQ:75:LEU:HD12	49:FQ:76:VAL:N	2.36	0.40
11:CK:118:LEU:HD12	11:CK:118:LEU:H	1.85	0.40
33:BA:675:A:N1	33:BA:676:A:C4	2.90	0.40
1:GA:2886:A:N6	27:G0:39:ARG:CD	2.84	0.40
33:BA:1453:G:N3	33:BA:1453:G:H3'	2.35	0.40
34:DB:138:ARG:HA	34:DB:141:GLU:HG2	2.03	0.40
1:GA:2666:C:C5	1:GA:2667:C:C5	3.09	0.40
33:FA:52:C:H2'	33:FA:53:A:H8	1.85	0.40
44:DL:87:VAL:HG11	44:DL:90:LEU:CD2	2.52	0.40
51:FS:63:THR:CG2	51:FS:64:ASP:N	2.84	0.40
33:DA:490:C:H2'	33:DA:491:G:H8	1.85	0.40
21:AU:82:VAL:CG1	21:AU:83:GLY:N	2.84	0.40
54:BV:538:ASN:ND2	54:BV:550:ILE:HG21	2.36	0.40
36:DD:102:VAL:HG12	36:DD:114:ALA:HB1	2.04	0.40
43:BK:96:THR:HG23	43:BK:97:ILE:N	2.36	0.40
8:EH:21:VAL:CG2	8:EH:25:TYR:HD2	2.34	0.40
35:BC:88:ARG:HG3	35:BC:99:ALA:O	2.21	0.40
19:GS:27:LYS:O	19:GS:71:VAL:HG22	2.20	0.40
14:CN:24:MET:HG2	14:CN:44:LEU:HD13	2.03	0.40
40:FH:86:TYR:CE1	40:FH:124:GLU:HB2	2.57	0.40
1:GA:2070:A:O2'	1:GA:2071:A:H5'	2.22	0.40
1:CA:1027:A:C5	1:CA:1126:A:C2	3.09	0.40
46:HN:20:TYR:O	46:HN:24:ARG:N	2.54	0.40
33:BA:1060:U:C5	35:BC:2:GLY:HA3	2.56	0.40
40:BH:2:SER:OG	40:BH:3:MET:N	2.53	0.40
1:AA:1062:G:N2	1:AA:1063:G:C4	2.90	0.40
1:CA:2149:U:C5	1:CA:2150:C:H1'	2.56	0.40
4:ED:193:VAL:HG21	4:ED:201:LEU:HD21	2.03	0.40
33:FA:930:C:C4	33:FA:931:C:C5	3.09	0.40
34:DB:127:LYS:HG3	34:DB:128:LEU:N	2.35	0.40
40:HH:59:LEU:HD21	40:HH:61:LEU:CD2	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DF:86:ARG:HH21	50:DR:64:TYR:HB3	1.87	0.40
1:GA:1770:G:C6	1:GA:1983:G:C6	3.09	0.40
38:HF:97:THR:O	38:HF:98:GLU:HG2	2.21	0.40
11:GK:13:ASN:O	11:GK:14:SER:OG	2.32	0.40
36:DD:139:PRO:O	36:DD:140:ASN:HB2	2.21	0.40
1:CA:1269:A:O5'	1:CA:1269:A:H8	2.04	0.40
53:HU:29:LEU:C	53:HU:29:LEU:HD23	2.41	0.40
1:CA:936:A:C6	1:CA:937:C:C4	3.09	0.40
2:EB:39:A:H2'	2:EB:40:U:C6	2.56	0.40
8:AH:42:LYS:HE2	8:AH:46:PHE:CZ	2.57	0.40
16:AP:32:VAL:HG22	16:AP:37:LYS:HD2	2.04	0.40
33:DA:127:G:C6	33:DA:128:G:N7	2.89	0.40
1:GA:1815:A:C8	1:GA:1817:G:C4	3.09	0.40
11:EK:43:ILE:HG13	11:EK:56:ASP:HB2	2.03	0.40
1:AA:627:A:O4'	1:AA:637:A:N6	2.55	0.40
34:BB:121:GLN:NE2	34:BB:122:ASP:OD1	2.55	0.40
17:AQ:51:GLN:O	17:AQ:54:ARG:N	2.52	0.40
1:EA:488:G:N2	1:EA:493:G:O6	2.54	0.40
33:HA:520:A:N1	33:HA:536:C:H1'	2.36	0.40
35:HC:134:MET:SD	35:HC:153:VAL:CG1	3.09	0.40
14:CN:65:LEU:O	14:CN:68:ALA:N	2.54	0.40
1:AA:282:A:H2'	1:AA:283:G:C8	2.57	0.40
33:DA:141:G:C4	33:DA:142:G:C8	3.09	0.40
33:DA:142:G:H2'	33:DA:142:G:N3	2.37	0.40
1:AA:770:G:P	29:A2:11:LYS:HE3	2.61	0.40
1:AA:2038:G:H2'	1:AA:2039:U:O4'	2.21	0.40
33:FA:767:A:H2'	33:FA:768:A:O4'	2.21	0.40
11:GK:42:THR:HG23	11:GK:44:LYS:HE2	2.03	0.40
33:HA:1459:G:C6	33:HA:1460:C:C4	3.09	0.40
40:HH:64:LYS:HB3	40:HH:71:VAL:HG21	2.02	0.40
54:FV:362:ARG:NH2	54:FV:373:GLU:OE2	2.46	0.40
33:FA:1037:C:N4	33:FA:1038:C:N4	2.69	0.40
1:CA:2840:C:C2	1:CA:2841:C:C5	3.09	0.40
41:HI:84:THR:HG21	41:HI:103:PHE:HB3	2.03	0.40
33:DA:1438:G:C2'	33:DA:1439:G:H5'	2.52	0.40
25:CY:7:ARG:H	25:CY:60:LYS:HZ1	1.69	0.40
11:AK:71:ARG:HG3	11:AK:105:ARG:CZ	2.50	0.40
4:GD:48:ILE:HD13	4:GD:89:GLU:OE2	2.20	0.40
1:EA:1346:G:H2'	1:EA:1347:A:H8	1.85	0.40
1:GA:1614:A:N7	59:GA:3310:HOH:O	2.37	0.40
41:BI:129:LYS:HG3	41:BI:130:ARG:HG2	2.02	0.40
41:FI:13:LYS:O	41:FI:14:SER:HB3	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:EH:41:LYS:O	8:EH:44:ILE:HG12	2.22	0.40
1:GA:1297:C:OP1	1:GA:2710:C:H4'	2.21	0.40
41:BI:48:VAL:HG22	41:BI:83:ILE:HD11	2.03	0.40
1:CA:1100:C:C4	1:CA:1101:U:C5	3.09	0.40
33:HA:959:A:O2'	33:HA:984:C:O2'	2.35	0.40
32:E5:15:VAL:HG22	32:E5:66:GLY:HA3	2.03	0.40
54:DV:493:THR:HG22	54:DV:613:LEU:HD21	2.03	0.40
33:DA:656:G:H2'	33:DA:657:U:H6	1.86	0.40
1:GA:2100:G:C6	1:GA:2190:G:C6	3.09	0.40
48:HP:78:VAL:HG12	48:HP:78:VAL:O	2.21	0.40
39:HG:97:ASN:OD1	39:HG:97:ASN:N	2.55	0.40
9:CI:7:TYR:O	9:CI:7:TYR:CD1	2.74	0.40
18:ER:29:THR:O	18:ER:29:THR:HG22	2.22	0.40
33:FA:723:U:H2'	53:FU:49:LYS:HD3	2.03	0.40
33:FA:636:U:H2'	33:FA:637:C:C6	2.55	0.40
3:EC:29:PHE:CE2	3:EC:31:PRO:HG2	2.56	0.40
1:CA:2526:G:C6	1:CA:2527:C:C4	3.10	0.40
9:AI:89:SER:OG	9:AI:135:MET:CE	2.69	0.40
1:CA:571:U:C4	1:CA:2030:A:C6	3.09	0.40
1:AA:2204:G:H4'	3:AC:149:LYS:HG3	2.04	0.40
1:GA:782:A:H5'	1:GA:783:A:C2	2.57	0.40
1:CA:2355:G:C6	1:CA:2356:U:C4	3.09	0.40
33:HA:1033:G:C2'	33:HA:1034:G:H5'	2.49	0.40
23:EW:52:CYS:SG	23:EW:56:HIS:HA	2.61	0.40
41:DI:7:TYR:CD1	41:DI:20:PHE:CE1	3.09	0.40
1:GA:2016:U:H2'	1:GA:2017:U:C6	2.57	0.40
4:ED:119:ALA:HB3	4:ED:124:ARG:HB2	2.03	0.40
23:AW:10:ARG:O	23:AW:11:ASN:HB2	2.21	0.40
53:DU:40:LYS:H	53:DU:41:PRO:CD	2.35	0.40
1:AA:787:C:P	59:AA:3745:HOH:O	2.80	0.40
1:AA:1066:U:H2'	1:AA:1068:G:N7	2.36	0.40
1:AA:2304:G:O2'	6:AF:152:ASP:HB3	2.20	0.40
40:FH:44:GLY:O	40:FH:64:LYS:NZ	2.48	0.40
33:DA:1410:A:H2'	33:DA:1411:C:C6	2.57	0.40
33:HA:1508:A:H2'	33:HA:1509:C:O4'	2.22	0.40
4:AD:118:PHE:HZ	14:AN:1:MET:CB	2.34	0.40
23:GW:60:ALA:HA	23:GW:81:ILE:HD11	2.03	0.40
33:BA:1492:A:C2'	33:BA:1493:A:H5''	2.51	0.40
33:FA:1494:G:N7	55:FW:1:KBE:CA	2.84	0.40
1:AA:2730:C:O3'	4:AD:174:SER:HB3	2.20	0.40
4:GD:5:VAL:HG21	4:GD:80:TRP:HB2	2.04	0.40
34:HB:32:GLY:CA	34:HB:39:ILE:H	2.31	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1529:G:H2'	1:AA:1530:G:O4'	2.22	0.40
7:CG:67:ALA:O	7:CG:71:LEU:HD23	2.21	0.40
13:AM:43:ALA:O	13:AM:46:ILE:HD13	2.21	0.40
33:HA:476:U:O2'	33:HA:477:C:H5'	2.22	0.40
18:CR:5:PHE:HE1	18:CR:14:VAL:HG21	1.85	0.40
12:CL:61:LEU:O	30:C3:12:ARG:HD3	2.22	0.40
17:GQ:4:LYS:CE	17:GQ:7:VAL:CG1	3.00	0.40
43:HK:107:ILE:HG12	53:HU:12:PHE:HZ	1.87	0.40
3:CC:15:VAL:HA	3:CC:203:VAL:CG1	2.52	0.40
7:GG:30:GLY:HA3	7:GG:78:VAL:HA	2.03	0.40
33:FA:1239:A:H62	33:FA:1299:A:N6	2.19	0.40
49:DQ:12:VAL:O	49:DQ:13:VAL:CB	2.69	0.40
45:DM:54:ASP:HA	45:DM:57:ARG:CB	2.52	0.40
1:GA:994:C:OP1	17:GQ:52:ARG:NH1	2.49	0.40
33:DA:1476:A:H2'	33:DA:1477:U:O4'	2.21	0.40
1:CA:754:U:O2'	1:CA:1272:A:N1	2.50	0.40
8:EH:2:GLN:C	8:EH:3:VAL:HG13	2.41	0.40
9:AI:102:ARG:N	9:AI:139:VAL:CG2	2.85	0.40
50:HR:55:LEU:O	50:HR:59:ILE:N	2.32	0.40
1:CA:1936:A:C2	1:CA:1945:G:C4	3.10	0.40
1:GA:1626:A:O2'	1:GA:1627:G:P	2.80	0.40
33:BA:792:A:H4'	33:BA:793:U:O5'	2.21	0.40
1:GA:2591:C:P	3:GC:237:ARG:HG3	2.62	0.40
43:DK:79:ILE:HB	43:DK:105:PHE:HE1	1.85	0.40
51:BS:12:ASP:OD2	51:BS:37:ARG:HD2	2.22	0.40
33:BA:79:G:O2'	33:BA:80:A:O4'	2.40	0.40
1:GA:2358:A:C5	1:GA:2359:C:C5	3.10	0.40
1:GA:2144:G:N2	1:GA:2147:A:C2	2.89	0.40
1:CA:874:G:C4	1:CA:875:G:C8	3.09	0.40
4:GD:172:VAL:CG2	4:GD:194:PRO:HD3	2.51	0.40
33:DA:1486:G:H2'	33:DA:1487:G:O4'	2.21	0.40
18:CR:10:LYS:NZ	18:CR:23:GLU:OE1	2.55	0.40
1:EA:2787:C:H1'	4:ED:63:PRO:HG3	2.03	0.40
7:GG:104:LEU:HD12	7:GG:112:VAL:HG21	2.02	0.40
33:FA:730:G:C5	33:FA:731:G:H1'	2.57	0.40
1:CA:812:C:OP1	17:CQ:12:ARG:NH2	2.54	0.40
1:CA:2585:U:HO2'	1:CA:2586:U:P	2.44	0.40
3:CC:166:ARG:HB3	3:CC:171:VAL:HG22	2.02	0.40
1:EA:635:C:O2'	1:EA:639:U:H5''	2.21	0.40
1:CA:2345:G:C5	1:CA:2381:A:C2	3.08	0.40
17:GQ:40:LYS:O	17:GQ:43:GLN:N	2.55	0.40
1:CA:1002:G:C6	1:CA:1003:G:C5	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:HM:34:LEU:CD1	45:HM:41:GLU:HA	2.51	0.40
20:CT:69:ARG:CG	20:CT:70:HIS:N	2.85	0.40
1:EA:2442:C:H2'	1:EA:2443:C:H6	1.86	0.40
20:AT:43:ILE:HD13	20:AT:44:LYS:N	2.36	0.40
33:BA:400:C:C2'	33:BA:401:C:H5'	2.52	0.40
14:GN:33:ILE:HD11	14:GN:112:TYR:HD1	1.86	0.40
54:HV:407:GLU:O	54:HV:408:ARG:HB3	2.22	0.40
34:BB:40:ILE:HG13	34:BB:41:ASN:N	2.36	0.40
1:AA:1992:G:C2	1:AA:1997:C:N3	2.89	0.40
1:EA:1198:U:H4'	17:EQ:4:LYS:HZ2	1.86	0.40
40:DH:105:SER:HB2	40:DH:126:ILE:HD11	2.03	0.40
1:EA:107:G:C2	1:EA:108:G:C8	3.10	0.40
33:HA:1051:C:H5''	54:HV:543:GLY:HA3	2.02	0.40
1:AA:2637:U:C2'	1:AA:2638:G:H5'	2.52	0.40
4:CD:91:THR:O	4:CD:93:GLY:N	2.48	0.40
36:HD:147:GLU:O	36:HD:148:LYS:C	2.59	0.40
1:CA:2147:A:H3'	1:CA:2148:G:O4'	2.21	0.40
35:DC:130:PHE:CD2	35:DC:131:ARG:N	2.90	0.40
16:GP:28:LYS:O	16:GP:80:VAL:O	2.39	0.40
20:AT:18:GLU:O	20:AT:21:SER:N	2.55	0.40
33:DA:1438:G:OP1	52:DT:29:ARG:HD3	2.22	0.40
43:FK:26:SER:OG	43:FK:29:ASN:N	2.50	0.40
54:HV:212:VAL:O	54:HV:216:ASN:N	2.50	0.40
33:BA:688:G:C5	33:BA:700:G:C2	3.09	0.40
33:HA:781:A:C4	33:HA:802:A:C2	3.09	0.40
1:EA:2676:C:O2	1:EA:2732:G:N2	2.54	0.40
54:FV:442:ASP:OD1	54:FV:445:PHE:N	2.55	0.40
1:AA:1517:G:N2	1:AA:1732:C:C2	2.90	0.40
1:EA:303:G:N2	1:EA:315:G:C4	2.90	0.40
12:EL:2:ARG:HA	12:EL:5:THR:CG2	2.51	0.40
1:AA:372:G:O4'	24:AX:60:LYS:HE3	2.22	0.40
1:CA:1522:A:H4'	1:CA:1524:G:C8	2.56	0.40
1:GA:831:G:OP1	59:GA:3347:HOH:O	2.22	0.40
33:HA:1188:A:H2'	33:HA:1189:U:O4'	2.21	0.40
33:HA:188:C:H2'	33:HA:189:A:O4'	2.21	0.40
33:BA:501:C:H1'	33:BA:549:C:H1'	2.03	0.40
54:FV:33:TYR:CE1	54:FV:199:GLY:HA3	2.55	0.40
52:HT:20:HIS:CE1	52:HT:24:ARG:HD3	2.57	0.40
54:HV:421:GLU:O	54:HV:481:ALA:HB1	2.21	0.40
1:AA:2220:U:H2'	1:AA:2221:G:H8	1.86	0.40
33:DA:701:U:H4'	33:DA:702:A:O5'	2.21	0.40
1:AA:2015:A:C2	27:A0:2:VAL:CG2	3.04	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:G2:29:GLN:HA	29:G2:32:ALA:HB3	2.03	0.40
38:BF:99:ALA:O	38:BF:100:SER:HB2	2.22	0.40
1:AA:2053:G:N2	1:AA:2616:C:O2	2.55	0.40
1:CA:659:G:H4'	5:CE:95:LYS:HD3	2.04	0.40
1:AA:2607:G:H2'	1:AA:2608:G:O4'	2.21	0.40
1:CA:553:G:H2'	1:CA:554:U:O4'	2.22	0.40
10:AJ:98:GLU:HB3	10:AJ:124:VAL:HG23	2.04	0.40
1:EA:1652:A:C2	1:EA:2006:C:N3	2.89	0.40
36:BD:32:CYS:SG	36:BD:34:ILE:N	2.95	0.40
54:HV:578:LEU:HD13	54:HV:579:HIS:H	1.86	0.40
49:DQ:65:ARG:HG3	49:DQ:66:PRO:HD2	2.03	0.40
6:EF:124:ARG:HA	6:EF:160:LYS:O	2.21	0.40
11:CK:3:GLN:CG	11:CK:4:GLU:N	2.85	0.40
35:HC:47:LEU:CD1	35:HC:68:ILE:HD13	2.51	0.40
1:GA:1343:G:H1'	1:GA:1597:A:C4	2.57	0.40
36:FD:20:PHE:N	36:FD:20:PHE:CD1	2.89	0.40
48:BP:63:GLN:N	48:BP:63:GLN:OE1	2.54	0.40
20:GT:73:ARG:NH2	20:GT:73:ARG:HB3	2.36	0.40
17:EQ:40:LYS:HB2	17:EQ:40:LYS:NZ	2.36	0.40
53:DU:29:LEU:C	53:DU:29:LEU:HD23	2.42	0.40
33:BA:322:C:OP2	33:BA:328:C:N4	2.55	0.40
33:BA:138:G:C6	33:BA:226:G:C6	3.10	0.40
18:CR:64:VAL:N	18:CR:95:ASP:O	2.54	0.40
13:AM:77:PRO:HD2	13:AM:80:VAL:HG11	2.04	0.40
14:GN:78:LYS:HG2	14:GN:83:LEU:CD1	2.52	0.40
36:BD:58:LYS:HB2	36:BD:200:ILE:HG13	2.04	0.40
12:CL:101:ILE:HG22	12:CL:102:GLY:N	2.37	0.40
12:GL:30:THR:O	12:GL:33:ARG:HG2	2.21	0.40
54:DV:92:HIS:HB3	54:DV:93:VAL:H	1.64	0.40
54:DV:93:VAL:HG22	54:DV:94:ASP:H	1.87	0.40
1:EA:31:C:O2'	1:EA:1238:G:H5'	2.21	0.40
33:BA:706:A:C6	33:BA:707:U:C2	3.09	0.40
1:AA:807:U:OP2	12:AL:36:LYS:HD3	2.21	0.40
10:CJ:44:TYR:HA	17:CQ:59:LEU:HD21	2.02	0.40
1:GA:2364:C:H2'	1:GA:2365:G:O4'	2.21	0.40
23:GW:39:GLN:HG2	23:GW:41:GLY:H	1.86	0.40
1:GA:1394:U:C5	1:GA:1395:A:C5	3.09	0.40
33:DA:1039:G:H2'	33:DA:1040:U:H6	1.86	0.40
23:AW:28:GLU:OE2	23:AW:29:SER:OG	2.37	0.40
33:DA:1198:G:C6	33:DA:1199:U:C4	3.09	0.40
9:GI:12:VAL:HG23	9:GI:13:ALA:N	2.36	0.40
54:BV:342:VAL:CG1	54:BV:378:ARG:HD3	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:29:U:H2'	1:AA:30:G:C8	2.57	0.40
33:BA:739:C:O2	47:BO:42:HIS:HE1	2.05	0.40
1:EA:2352:A:C6	1:EA:2366:A:C4	3.09	0.40
6:GF:3:LEU:HD13	6:GF:6:TYR:CB	2.52	0.40
1:AA:624:C:H1'	1:AA:657:U:H5''	2.03	0.40
1:AA:1248:G:C6	17:AQ:2:ARG:HD2	2.57	0.40
1:CA:574:A:H4'	1:CA:575:A:O5'	2.21	0.40
32:A5:100:ALA:HB3	32:A5:125:ARG:HD2	2.03	0.40
16:EP:50:ARG:O	16:EP:51:ASN:HB2	2.22	0.40
1:AA:1088:A:H61	9:AI:130:GLY:HA3	1.85	0.40
1:AA:1736:U:H2'	1:AA:1737:G:O4'	2.22	0.40
54:FV:550:ILE:N	54:FV:551:PRO:CD	2.84	0.40
33:DA:1102:A:H2'	33:DA:1103:C:C6	2.56	0.40
12:CL:82:LEU:HD21	12:CL:116:VAL:CG2	2.51	0.40
52:FT:68:HIS:HB3	52:FT:69:LYS:HZ2	1.87	0.40
33:BA:1314:C:H2'	33:BA:1315:U:C6	2.56	0.40
9:GI:101:SER:HA	9:GI:140:GLU:CG	2.51	0.40
1:GA:2043:C:H1'	1:GA:2779:U:O4	2.22	0.40
1:EA:1082:U:N3	1:EA:1083:U:C2	2.90	0.40
4:ED:68:PHE:CE2	4:ED:75:ALA:HB1	2.57	0.40
6:GF:107:VAL:HG13	6:GF:113:PHE:CZ	2.56	0.40
4:CD:107:VAL:H	4:CD:206:ALA:H	1.69	0.40
1:CA:2831:G:O4'	1:CA:2883:A:C2	2.74	0.40
1:EA:683:U:C2'	1:EA:684:G:O5'	2.69	0.40
1:CA:1268:A:C2	1:CA:2013:A:C4	3.08	0.40
3:AC:173:LEU:HD11	3:AC:183:VAL:HB	2.04	0.40
15:CO:31:THR:HG22	15:CO:33:ARG:H	1.87	0.40
6:GF:73:VAL:HG22	6:GF:78:ILE:HD11	2.04	0.40
12:AL:90:VAL:HB	12:AL:122:VAL:HG12	2.03	0.40
23:CW:73:PRO:HG2	23:CW:76:ARG:CB	2.52	0.40
36:HD:59:GLN:O	36:HD:63:ARG:HG3	2.21	0.40
7:CG:83:THR:O	7:CG:84:LYS:HB3	2.21	0.40
54:BV:227:ALA:HB1	54:BV:234:MET:CB	2.52	0.40
18:GR:41:ILE:HG22	18:GR:42:ALA:N	2.36	0.40
50:HR:34:THR:HG22	50:HR:38:LYS:O	2.22	0.40
3:GC:93:VAL:CG2	3:GC:115:ILE:HD12	2.52	0.40
41:BI:97:GLU:HA	41:BI:100:LYS:HG3	2.03	0.40
1:GA:2788:C:H2'	1:GA:2789:C:C6	2.57	0.40
3:GC:57:HIS:CD2	3:GC:58:LYS:H	2.40	0.40
33:FA:1138:G:H2'	33:FA:1140:C:C6	2.57	0.40
33:FA:1336:C:H4'	33:FA:1337:G:H5'	2.03	0.40
1:GA:1482:G:O6	1:GA:1508:A:N1	2.55	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BG:65:ALA:HB2	39:BG:128:ALA:HB2	2.03	0.40
9:EI:27:LEU:CD1	9:EI:34:ILE:CD1	2.98	0.40
6:CF:9:ASP:O	6:CF:10:GLU:CB	2.70	0.40
48:DP:6:LEU:HB3	48:DP:17:TYR:HB3	2.02	0.40
16:CP:4:ILE:HG22	16:CP:8:GLU:HG3	2.02	0.40
38:BF:7:VAL:HG11	50:BR:23:TYR:OH	2.22	0.40
9:AI:57:VAL:CG1	9:AI:58:ILE:N	2.84	0.40
1:CA:783:A:H8	1:CA:784:G:H4'	1.86	0.40
11:AK:65:THR:HG1	11:AK:68:GLY:H	1.70	0.40
33:DA:449:G:H2'	33:DA:450:G:C8	2.56	0.40
33:DA:1507:A:H2'	33:DA:1508:A:C8	2.56	0.40
43:FK:118:HIS:O	43:FK:119:ASN:HB2	2.21	0.40
33:HA:1252:A:H61	33:HA:1285:A:N6	2.20	0.40
41:DI:33:ARG:HD2	41:DI:38:TYR:CD1	2.56	0.40
1:EA:2289:G:C2	1:EA:2290:G:C8	3.09	0.40
7:CG:35:THR:C	7:CG:36:LEU:HD22	2.42	0.40
1:AA:2427:C:H5''	1:AA:2428:G:OP1	2.21	0.40
13:GM:34:LYS:HE2	22:GV:81:PRO:O	2.21	0.40
38:BF:44:ARG:HA	38:BF:58:HIS:HA	2.03	0.40
33:BA:973:G:C2'	33:BA:974:A:OP1	2.70	0.40
1:CA:2704:C:C4	1:CA:2705:A:C5	3.10	0.40
54:BV:304:ASP:O	54:BV:305:THR:HG22	2.20	0.40
33:HA:654:G:C2	33:HA:753:A:C4	3.09	0.40
1:CA:2020:A:H5'	27:C0:8:THR:HG22	2.03	0.40
1:AA:1410:G:H2'	1:AA:1411:U:C6	2.55	0.40
45:FM:90:ARG:NH2	45:FM:95:LEU:HB3	2.37	0.40
33:HA:1193:G:OP1	35:HC:167:TRP:CH2	2.74	0.40
33:DA:502:A:H2'	33:DA:503:C:C6	2.56	0.40
54:DV:15:ILE:HG22	54:DV:23:LYS:HG3	2.03	0.40
7:GG:120:ILE:CD1	7:GG:139:VAL:HG12	2.51	0.40
54:FV:523:TYR:CZ	54:FV:575:GLY:HA3	2.56	0.40
38:DF:85:ILE:O	38:DF:86:ARG:C	2.60	0.40
23:GW:75:ASN:O	23:GW:76:ARG:CB	2.69	0.40
1:GA:1471:G:C6	1:GA:1472:C:C4	3.10	0.40
33:BA:827:U:C4	33:BA:870:U:C2	3.10	0.40
1:EA:2402:U:O2'	1:EA:2403:C:O5'	2.37	0.40
33:BA:337:G:H2'	33:BA:338:A:C8	2.56	0.40
1:CA:413:C:H2'	1:CA:414:C:C6	2.56	0.40
47:BO:53:ARG:O	47:BO:57:LEU:HG	2.21	0.40
35:FC:172:ARG:NH1	35:FC:203:PHE:HE2	2.19	0.40
3:CC:128:THR:C	3:CC:129:LEU:HD12	2.42	0.40
33:FA:475:C:H2'	33:FA:476:U:H6	1.85	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1421:G:C2	1:CA:1422:G:C8	3.10	0.40
1:GA:2585:U:O2'	1:GA:2586:U:P	2.80	0.40
7:GG:73:SER:HA	7:GG:76:ILE:HG22	2.04	0.40
33:BA:1268:G:C6	33:BA:1269:A:N6	2.89	0.40
3:GC:181:ARG:NH2	3:GC:182:LYS:O	2.55	0.40
27:A0:43:THR:HG23	27:A0:47:TYR:O	2.22	0.40
24:EX:32:LEU:O	24:EX:33:HIS:CG	2.74	0.40
1:GA:483:A:C8	21:GU:44:HIS:HD2	2.39	0.40
7:AG:93:TYR:HA	7:AG:105:SER:O	2.22	0.40
1:EA:1262:A:OP2	19:ES:99:ARG:NH2	2.54	0.40
3:EC:70:LYS:HD2	3:EC:73:ILE:HD12	2.03	0.40
1:EA:327:G:H2'	1:EA:328:U:C6	2.55	0.40
33:DA:992:U:H4'	33:DA:993:G:C5'	2.52	0.40
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.57	0.40
47:DO:63:ARG:HG2	47:DO:67:LEU:CD1	2.52	0.40
1:GA:2511:U:O4	1:GA:2575:C:N3	2.55	0.40
33:DA:1356:G:H2'	33:DA:1357:A:C8	2.56	0.40
24:EX:52:ALA:O	24:EX:53:LYS:HB3	2.22	0.40
1:CA:922:C:HO2'	23:CW:25:PHE:HE1	1.66	0.40
40:DH:7:ILE:HG23	40:DH:36:ILE:HD11	2.04	0.40
34:BB:58:LYS:NZ	34:BB:62:ARG:HG3	2.37	0.40
5:CE:150:THR:HG21	5:CE:153:LEU:HA	2.03	0.40
33:DA:187:G:O2'	33:DA:189:A:N7	2.42	0.40
1:GA:1872:A:C8	1:GA:1873:G:C1'	3.04	0.40
33:DA:197:A:N1	33:DA:220:G:O2'	2.47	0.40
5:CE:145:ASP:HA	5:CE:166:LYS:HB3	2.02	0.40
14:EN:84:GLY:N	14:EN:85:PRO:HD2	2.36	0.40
4:ED:139:SER:HB2	4:ED:142:VAL:HG21	2.03	0.40
3:AC:122:ALA:O	3:AC:127:ASN:ND2	2.52	0.40
1:EA:186:G:O2'	1:EA:187:G:H5'	2.22	0.40
1:CA:1684:G:H2'	1:CA:1685:C:C6	2.57	0.40
25:GY:45:GLN:O	25:GY:47:ARG:N	2.55	0.40
1:CA:1675:C:H2'	1:CA:1676:A:O4'	2.22	0.40
6:GF:109:ARG:O	6:GF:109:ARG:HG2	2.22	0.40
1:EA:634:C:H6	1:EA:634:C:O5'	2.04	0.40
1:AA:2285:C:H5'	1:AA:2288:A:N6	2.37	0.40
33:FA:548:G:H2'	33:FA:549:C:C6	2.57	0.40
44:DL:40:THR:OG1	44:DL:41:THR:N	2.54	0.40
10:GJ:45:THR:CG2	10:GJ:50:THR:HG21	2.51	0.40
9:CI:75:ALA:HB2	9:CI:112:LYS:HE2	2.02	0.40
23:CW:18:LYS:N	23:CW:36:ILE:HB	2.36	0.40
33:HA:1034:G:N2	33:HA:1035:A:C6	2.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:923:G:N3	23:EW:23:LYS:CD	2.85	0.40
23:EW:38:ARG:N	23:EW:38:ARG:HD3	2.37	0.40
1:CA:1152:C:H3'	59:CA:3354:HOH:O	2.21	0.40
1:CA:2884:U:H3	27:C0:39:ARG:CZ	2.35	0.40
32:A5:78:GLY:N	32:A5:79:PRO:HD2	2.37	0.40
32:A5:58:THR:OG1	32:A5:82:ILE:HB	2.22	0.40
16:CP:49:ILE:HG22	16:CP:50:ARG:N	2.36	0.40
16:CP:57:ALA:O	16:CP:58:PHE:HB3	2.21	0.40
16:CP:91:VAL:O	16:CP:92:ARG:HG2	2.21	0.40
33:BA:710:G:H5''	38:BF:53:LYS:NZ	2.36	0.40
53:BU:4:ILE:HD13	53:BU:20:LYS:HD3	2.04	0.40
33:BA:369:G:C4	33:BA:393:A:C2	3.10	0.40
33:BA:393:A:OP2	48:BP:12:LYS:HD2	2.22	0.40
1:GA:2748:A:H1'	7:GG:66:THR:HG22	2.04	0.40
1:GA:2748:A:H1'	7:GG:66:THR:CG2	2.52	0.40
1:AA:762:U:N3	1:AA:1431:A:OP1	2.48	0.40
1:AA:945:A:C2	1:AA:2448:A:C4	3.10	0.40
37:FE:114:VAL:HG22	37:FE:115:LEU:HD13	2.02	0.40
1:GA:1131:G:N2	1:GA:2024:G:H21	2.19	0.40
23:CW:39:GLN:HG2	23:CW:41:GLY:H	1.85	0.40
21:AU:5:ARG:HH11	21:AU:93:ARG:CG	2.34	0.40
33:DA:1038:C:H2'	33:DA:1039:G:C8	2.56	0.40
36:HD:105:MET:HB3	36:HD:107:PHE:HE1	1.85	0.40
51:HS:36:ARG:C	51:HS:38:SER:H	2.25	0.40
6:AF:87:LYS:O	6:AF:88:VAL:HG23	2.21	0.40
33:DA:1505:G:H4'	33:DA:1506:U:H5''	2.03	0.40
1:EA:2352:A:N1	23:EW:30:VAL:HG11	2.36	0.40
6:GF:3:LEU:HG	6:GF:100:GLU:HB2	2.03	0.40
44:FL:24:LEU:C	44:FL:26:ALA:H	2.23	0.40
19:AS:24:ILE:HD11	19:AS:36:LEU:HD13	2.02	0.40
11:EK:108:ARG:HD2	11:EK:116:ILE:CD1	2.52	0.40
42:HJ:40:ILE:HB	42:HJ:73:LEU:HB3	2.03	0.40
26:GZ:40:THR:OG1	26:GZ:41:PRO:HD2	2.22	0.40
33:DA:1101:A:H61	34:DB:101:THR:HG21	1.86	0.40
4:ED:107:VAL:HG13	4:ED:203:VAL:HG23	2.03	0.40
37:DE:109:GLY:O	37:DE:110:ALA:HB3	2.22	0.40
33:BA:1313:U:H2'	33:BA:1314:C:C6	2.57	0.40
24:GX:39:VAL:HG13	24:GX:46:VAL:HG12	2.03	0.40
44:BL:14:ARG:HH12	44:BL:15:LYS:HG2	1.87	0.40
33:HA:1392:G:C5	33:HA:1393:U:C5	3.10	0.40
18:AR:41:ILE:O	18:AR:46:GLU:HB2	2.20	0.40
6:CF:71:LYS:HE2	6:CF:71:LYS:HA	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:HV:24:THR:OG1	54:HV:88:ASP:OD2	2.39	0.40
39:HG:18:PHE:CE1	39:HG:58:GLU:HG2	2.56	0.40
41:FI:6:TYR:CG	41:FI:89:GLU:HB2	2.57	0.40
33:DA:144:G:H2'	33:DA:145:G:O4'	2.22	0.40
42:BJ:71:LEU:O	42:BJ:72:ARG:NH1	2.51	0.40
20:GT:89:GLU:O	20:GT:91:GLN:N	2.50	0.40
20:CT:54:GLU:HB2	20:CT:88:LYS:CG	2.50	0.40
1:CA:1668:A:H4'	1:CA:1669:A:O5'	2.22	0.40
54:DV:319:ALA:HB2	54:DV:338:VAL:HA	2.03	0.40
33:FA:949:A:O4'	33:FA:1364:U:H5	2.04	0.40
23:CW:51:GLY:CA	23:CW:59:PHE:CZ	3.05	0.40
23:CW:51:GLY:HA3	23:CW:59:PHE:CZ	2.56	0.40
33:BA:1239:A:H62	33:BA:1299:A:H62	1.69	0.40
41:BI:23:PRO:HA	41:BI:61:LEU:HA	2.03	0.40
44:BL:3:THR:HB	44:BL:6:GLN:CG	2.52	0.40
33:DA:383:A:C5	33:DA:384:G:H1'	2.57	0.40
35:BC:16:LYS:HG3	35:BC:17:PRO:HD2	2.02	0.40
7:CG:85:LYS:HG2	7:CG:131:VAL:CB	2.51	0.40
1:GA:2821:A:H2'	1:GA:2822:G:O4'	2.21	0.40
1:AA:2153:C:H5''	1:AA:2154:A:P	2.62	0.40
1:CA:1341:G:C6	20:CT:84:TYR:CE1	3.10	0.40
12:GL:77:ILE:HD12	12:GL:77:ILE:N	2.37	0.40
33:DA:553:A:O2'	44:DL:26:ALA:O	2.39	0.40
13:CM:2:LEU:HD11	13:CM:68:PHE:CE2	2.57	0.40
33:BA:1527:U:H2'	33:BA:1528:U:C6	2.57	0.40
37:BE:159:LYS:HZ2	40:BH:66:PHE:HD2	1.70	0.40
28:C1:16:THR:HG21	28:C1:41:VAL:HG23	2.03	0.40
1:AA:2294:G:H2'	1:AA:2295:C:H6	1.86	0.40
16:AP:28:LYS:O	16:AP:80:VAL:O	2.39	0.40
1:AA:892:A:C2	1:AA:893:C:C2	3.10	0.40
14:CN:79:LEU:O	14:CN:80:PHE:HB2	2.21	0.40
6:EF:172:PHE:O	6:EF:174:PHE:N	2.54	0.40
4:GD:193:VAL:HB	4:GD:194:PRO:HD2	2.03	0.40
33:HA:158:G:H2'	33:HA:159:G:C5'	2.52	0.40
1:AA:2793:C:H2'	1:AA:2794:C:H6	1.83	0.40
4:ED:151:THR:HG22	4:ED:152:PRO:HD3	2.03	0.40
53:FU:12:PHE:CZ	53:FU:16:LEU:HG	2.57	0.40
33:FA:1223:C:P	51:FS:78:ARG:NH1	2.95	0.40
33:FA:671:G:N2	33:FA:672:U:H1'	2.37	0.40
9:GI:21:PRO:HB2	9:GI:22:PRO:HD3	2.04	0.40
42:DJ:57:VAL:O	42:DJ:58:ASN:HB2	2.22	0.40
1:AA:1150:C:H2'	1:AA:1151:A:O5'	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EA:716:A:P	47:FO:89:ARG:NH1	2.94	0.40
20:ET:29:THR:HA	20:ET:86:THR:HA	2.03	0.40
33:BA:763:G:N2	33:BA:764:C:C2	2.89	0.40
11:AK:8:LEU:CD1	11:AK:82:ASN:HB3	2.51	0.40
1:GA:2287:A:C5	1:GA:2289:G:C8	3.10	0.40
2:EB:24:G:N2	2:EB:28:C:C2	2.89	0.40
33:BA:1248:A:H2'	33:BA:1249:C:C6	2.57	0.40
4:CD:14:ILE:HG12	4:CD:22:ILE:HB	2.03	0.40
1:AA:288:U:H2'	1:AA:289:G:H8	1.87	0.40
17:CQ:35:PHE:CE2	17:CQ:39:ILE:HD11	2.56	0.40
33:FA:653:U:H5'	40:FH:56:LYS:HE3	2.03	0.40
1:EA:2823:A:C5	1:EA:2824:C:C5	3.09	0.40
37:DE:81:LEU:CD2	37:DE:123:VAL:HG12	2.52	0.40
54:FV:51:ASP:HB3	54:FV:56:GLU:HG3	2.04	0.40
6:CF:2:LYS:HG3	6:CF:3:LEU:HD22	2.02	0.40
1:GA:2220:U:H2'	1:GA:2221:G:H8	1.86	0.40
19:CS:76:VAL:HG23	19:CS:101:SER:HB2	2.04	0.40
10:EJ:18:VAL:HG23	10:EJ:54:ILE:HD13	2.02	0.40
54:DV:532:LYS:C	54:DV:534:TYR:N	2.75	0.40
1:CA:1815:A:C5	1:CA:1817:G:C6	3.09	0.40
33:FA:1293:C:H2'	33:FA:1294:G:O4'	2.22	0.40
33:HA:661:G:N3	33:HA:745:G:N2	2.70	0.40
15:CO:11:ALA:HB2	15:CO:96:GLY:CA	2.52	0.40
1:GA:613:A:HO2'	1:GA:614:A:P	2.43	0.40
11:CK:19:VAL:HG13	11:CK:41:ILE:HG23	2.04	0.40
1:GA:2550:G:C6	1:GA:2551:C:C4	3.10	0.40
54:HV:30:ILE:O	54:HV:34:THR:HG22	2.21	0.40
1:AA:1906:G:H5'	1:AA:1929:G:O2'	2.22	0.40
7:EG:30:GLY:HA3	7:EG:78:VAL:HG13	2.03	0.40
1:EA:65:U:H2'	1:EA:66:C:C6	2.56	0.40
12:GL:92:LEU:HA	12:GL:125:LEU:HD21	2.03	0.40
1:EA:81:G:HO2'	1:EA:295:G:HO2'	1.67	0.40
15:GO:11:ALA:HB2	15:GO:96:GLY:CA	2.51	0.40
29:A2:12:ARG:HH11	29:A2:44:VAL:HG11	1.87	0.40
1:EA:329:G:O4'	1:EA:477:A:H1'	2.21	0.40
4:ED:121:THR:O	4:ED:122:VAL:HG23	2.21	0.40
54:FV:29:ARG:HA	54:FV:29:ARG:CZ	2.51	0.40
11:AK:71:ARG:HA	11:AK:71:ARG:HD3	1.94	0.40
3:EC:30:ALA:N	3:EC:31:PRO:HD2	2.37	0.40
5:CE:152:GLU:O	5:CE:153:LEU:HB3	2.22	0.40
1:GA:1533:C:C4	1:GA:1534:U:C5	3.10	0.40
32:A5:3:LEU:CD1	32:A5:5:LEU:HG	2.51	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BA:135:C:H2'	33:BA:136:C:H5'	2.04	0.40
1:AA:532:A:N1	1:AA:2020:A:H1'	2.36	0.40
50:FR:55:LEU:O	50:FR:58:ALA:N	2.55	0.40
38:DF:21:MET:HB3	38:DF:25:TYR:CE2	2.57	0.40
2:EB:7:G:C5'	15:EO:29:HIS:CE1	3.04	0.40
37:FE:154:ALA:O	37:FE:158:GLY:HA3	2.21	0.40
45:DM:34:LEU:HD23	45:DM:56:LEU:HD22	2.03	0.40
19:ES:73:LYS:HB3	19:ES:106:VAL:HB	2.03	0.40
47:DO:30:ALA:HA	47:DO:85:LEU:HD21	2.03	0.40
5:AE:145:ASP:HA	5:AE:166:LYS:O	2.21	0.40
1:EA:2391:G:H3'	30:E3:31:ILE:HD11	2.02	0.40
33:DA:234:C:H2'	33:DA:235:C:H6	1.87	0.40
33:FA:1113:C:C1'	35:FC:178:LEU:HD23	2.52	0.40
33:BA:188:C:H2'	33:BA:189:A:O4'	2.22	0.40
13:EM:50:ARG:HD3	13:EM:65:ILE:HD11	2.03	0.40
4:ED:55:LYS:HD3	4:ED:60:VAL:HG22	2.04	0.40
54:DV:545:ILE:HD11	54:DV:581:GLY:HA3	2.03	0.40
35:BC:112:ASP:O	35:BC:116:VAL:HG23	2.22	0.40
28:A1:38:PHE:CE1	28:A1:40:PRO:HA	2.57	0.40
33:BA:925:G:C6	33:BA:927:G:N7	2.90	0.40
1:GA:856:G:H2'	1:GA:857:G:C8	2.56	0.40
1:AA:491:G:C5	1:AA:492:A:C8	3.10	0.40
1:CA:2675:A:N1	1:CA:2676:C:C2	2.89	0.40
1:CA:1549:A:C6	1:CA:1550:C:C4	3.09	0.40
33:HA:662:U:H2'	33:HA:663:A:C8	2.56	0.40
45:DM:86:TYR:CZ	45:DM:90:ARG:HD3	2.56	0.40
33:FA:1411:C:O2'	33:FA:1412:C:H5'	2.21	0.40
1:AA:685:A:O2'	1:AA:773:U:O4	2.36	0.40
35:HC:191:THR:HG21	35:HC:196:ILE:HD12	2.03	0.40
33:BA:959:A:H5''	33:BA:960:U:OP2	2.21	0.40
33:FA:1348:U:C5	33:FA:1373:G:N2	2.90	0.40
4:AD:45:TYR:CD1	4:AD:45:TYR:N	2.89	0.40
52:HT:4:ILE:O	52:HT:4:ILE:HG22	2.21	0.40
52:BT:39:ILE:HD12	52:BT:82:GLN:HB3	2.03	0.40
26:GZ:15:ARG:N	26:GZ:15:ARG:HD2	2.36	0.40
37:FE:132:ASN:O	37:FE:136:VAL:HG23	2.22	0.40
1:AA:2357:G:C2	1:AA:2361:G:C5	3.09	0.40
45:DM:79:ARG:HH11	51:DS:65:GLU:HG2	1.86	0.40
1:AA:1168:G:H3'	1:AA:1169:A:H8	1.87	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:FA:1029:U:O3'	1:GA:1508:A:N6[1_565]	2.13	0.07
33:FA:1029:U:OP2	1:GA:1509:A:N6[1_565]	2.16	0.04
33:FA:1029:U:O2'	1:GA:1508:A:N6[1_565]	2.16	0.04
6:GF:20:ASN:ND2	21:GU:52:ASN:OD1[2_556]	2.18	0.02

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	AC	269/273 (98%)	220 (82%)	34 (13%)	15 (6%)	3	8
3	CC	269/273 (98%)	218 (81%)	35 (13%)	16 (6%)	2	7
3	EC	269/273 (98%)	219 (81%)	36 (13%)	14 (5%)	3	10
3	GC	269/273 (98%)	225 (84%)	30 (11%)	14 (5%)	3	10
4	AD	207/209 (99%)	161 (78%)	33 (16%)	13 (6%)	2	6
4	CD	207/209 (99%)	160 (77%)	33 (16%)	14 (7%)	2	5
4	ED	207/209 (99%)	155 (75%)	34 (16%)	18 (9%)	1	3
4	GD	207/209 (99%)	158 (76%)	34 (16%)	15 (7%)	2	4
5	AE	199/201 (99%)	163 (82%)	24 (12%)	12 (6%)	2	7
5	CE	199/201 (99%)	161 (81%)	26 (13%)	12 (6%)	2	7
5	EE	199/201 (99%)	162 (81%)	25 (13%)	12 (6%)	2	7
5	GE	199/201 (99%)	162 (81%)	25 (13%)	12 (6%)	2	7
6	AF	175/179 (98%)	128 (73%)	41 (23%)	6 (3%)	6	23
6	CF	175/179 (98%)	132 (75%)	37 (21%)	6 (3%)	6	23
6	EF	175/179 (98%)	139 (79%)	29 (17%)	7 (4%)	5	17
6	GF	175/179 (98%)	132 (75%)	40 (23%)	3 (2%)	14	45
7	AG	174/177 (98%)	124 (71%)	33 (19%)	17 (10%)	1	2
7	CG	174/177 (98%)	123 (71%)	37 (21%)	14 (8%)	1	3
7	EG	174/177 (98%)	120 (69%)	43 (25%)	11 (6%)	2	6

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	GG	174/177 (98%)	118 (68%)	41 (24%)	15 (9%)	1	3
8	AH	48/50 (96%)	24 (50%)	19 (40%)	5 (10%)	1	2
8	CH	48/50 (96%)	23 (48%)	19 (40%)	6 (12%)	1	1
8	EH	48/50 (96%)	24 (50%)	19 (40%)	5 (10%)	1	2
8	GH	48/50 (96%)	24 (50%)	21 (44%)	3 (6%)	2	6
9	AI	139/142 (98%)	87 (63%)	45 (32%)	7 (5%)	3	11
9	CI	139/142 (98%)	92 (66%)	37 (27%)	10 (7%)	2	4
9	EI	139/142 (98%)	90 (65%)	42 (30%)	7 (5%)	3	11
9	GI	139/142 (98%)	89 (64%)	38 (27%)	12 (9%)	1	3
10	AJ	140/142 (99%)	114 (81%)	18 (13%)	8 (6%)	3	8
10	CJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	3	8
10	EJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	3	8
10	GJ	140/142 (99%)	114 (81%)	17 (12%)	9 (6%)	2	6
11	AK	120/123 (98%)	93 (78%)	17 (14%)	10 (8%)	1	3
11	CK	120/123 (98%)	91 (76%)	21 (18%)	8 (7%)	2	5
11	EK	120/123 (98%)	92 (77%)	17 (14%)	11 (9%)	1	2
11	GK	120/123 (98%)	92 (77%)	19 (16%)	9 (8%)	2	4
12	AL	141/144 (98%)	107 (76%)	26 (18%)	8 (6%)	3	8
12	CL	141/144 (98%)	107 (76%)	27 (19%)	7 (5%)	3	11
12	EL	141/144 (98%)	108 (77%)	26 (18%)	7 (5%)	3	11
12	GL	141/144 (98%)	109 (77%)	25 (18%)	7 (5%)	3	11
13	AM	134/136 (98%)	105 (78%)	22 (16%)	7 (5%)	3	10
13	CM	134/136 (98%)	111 (83%)	16 (12%)	7 (5%)	3	10
13	EM	134/136 (98%)	110 (82%)	18 (13%)	6 (4%)	4	14
13	GM	134/136 (98%)	112 (84%)	16 (12%)	6 (4%)	4	14
14	AN	118/127 (93%)	101 (86%)	15 (13%)	2 (2%)	14	45
14	CN	118/127 (93%)	98 (83%)	17 (14%)	3 (2%)	9	32
14	EN	118/127 (93%)	101 (86%)	14 (12%)	3 (2%)	9	32
14	GN	118/127 (93%)	98 (83%)	19 (16%)	1 (1%)	27	68
15	AO	114/117 (97%)	99 (87%)	14 (12%)	1 (1%)	25	66
15	CO	114/117 (97%)	96 (84%)	17 (15%)	1 (1%)	25	66

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	EO	114/117 (97%)	96 (84%)	18 (16%)	0	100	100
15	GO	114/117 (97%)	97 (85%)	13 (11%)	4 (4%)	6	23
16	AP	112/115 (97%)	83 (74%)	22 (20%)	7 (6%)	2	6
16	CP	112/115 (97%)	81 (72%)	22 (20%)	9 (8%)	1	3
16	EP	112/115 (97%)	83 (74%)	22 (20%)	7 (6%)	2	6
16	GP	112/115 (97%)	79 (70%)	21 (19%)	12 (11%)	1	2
17	AQ	115/118 (98%)	101 (88%)	9 (8%)	5 (4%)	4	15
17	CQ	115/118 (98%)	102 (89%)	9 (8%)	4 (4%)	6	23
17	EQ	115/118 (98%)	102 (89%)	8 (7%)	5 (4%)	4	15
17	GQ	115/118 (98%)	103 (90%)	7 (6%)	5 (4%)	4	15
18	AR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	CR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	ER	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	GR	101/103 (98%)	84 (83%)	13 (13%)	4 (4%)	5	17
19	AS	108/110 (98%)	93 (86%)	10 (9%)	5 (5%)	4	14
19	CS	108/110 (98%)	96 (89%)	8 (7%)	4 (4%)	5	20
19	ES	108/110 (98%)	91 (84%)	12 (11%)	5 (5%)	4	14
19	GS	108/110 (98%)	92 (85%)	11 (10%)	5 (5%)	4	14
20	AT	91/100 (91%)	59 (65%)	24 (26%)	8 (9%)	1	3
20	CT	91/100 (91%)	60 (66%)	23 (25%)	8 (9%)	1	3
20	ET	91/100 (91%)	59 (65%)	25 (28%)	7 (8%)	1	3
20	GT	91/100 (91%)	60 (66%)	22 (24%)	9 (10%)	1	2
21	AU	100/104 (96%)	73 (73%)	18 (18%)	9 (9%)	1	2
21	CU	100/104 (96%)	74 (74%)	16 (16%)	10 (10%)	1	2
21	EU	100/104 (96%)	74 (74%)	13 (13%)	13 (13%)	0	1
21	GU	100/104 (96%)	73 (73%)	18 (18%)	9 (9%)	1	2
22	AV	92/94 (98%)	82 (89%)	9 (10%)	1 (1%)	21	60
22	CV	92/94 (98%)	79 (86%)	12 (13%)	1 (1%)	21	60
22	EV	92/94 (98%)	82 (89%)	9 (10%)	1 (1%)	21	60
22	GV	92/94 (98%)	83 (90%)	8 (9%)	1 (1%)	21	60
23	AW	77/85 (91%)	41 (53%)	19 (25%)	17 (22%)	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	CW	77/85 (91%)	42 (54%)	21 (27%)	14 (18%)	0	0
23	EW	77/85 (91%)	42 (54%)	19 (25%)	16 (21%)	0	0
23	GW	77/85 (91%)	42 (54%)	21 (27%)	14 (18%)	0	0
24	AX	75/78 (96%)	65 (87%)	7 (9%)	3 (4%)	5	17
24	CX	75/78 (96%)	64 (85%)	8 (11%)	3 (4%)	5	17
24	EX	75/78 (96%)	64 (85%)	9 (12%)	2 (3%)	8	30
24	GX	75/78 (96%)	65 (87%)	9 (12%)	1 (1%)	18	54
25	AY	61/63 (97%)	40 (66%)	19 (31%)	2 (3%)	6	24
25	CY	61/63 (97%)	43 (70%)	17 (28%)	1 (2%)	14	47
25	EY	61/63 (97%)	38 (62%)	19 (31%)	4 (7%)	2	5
25	GY	61/63 (97%)	42 (69%)	17 (28%)	2 (3%)	6	24
26	AZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	5	22
26	CZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	5	22
26	EZ	56/59 (95%)	48 (86%)	6 (11%)	2 (4%)	5	22
26	GZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	5	22
27	A0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	3	8
27	C0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	3	8
27	E0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	3	8
27	G0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	3	8
28	A1	48/55 (87%)	40 (83%)	5 (10%)	3 (6%)	2	6
28	C1	48/55 (87%)	40 (83%)	6 (12%)	2 (4%)	4	16
28	E1	48/55 (87%)	42 (88%)	5 (10%)	1 (2%)	11	39
28	G1	48/55 (87%)	41 (85%)	5 (10%)	2 (4%)	4	16
29	A2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	10	36
29	C2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	10	36
29	E2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	10	36
29	G2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	10	36
30	A3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	6	25
30	C3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	6	25
30	E3	62/65 (95%)	55 (89%)	5 (8%)	2 (3%)	6	25
30	G3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	6	25

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	A4	36/38 (95%)	31 (86%)	2 (6%)	3 (8%)	1	3
31	C4	36/38 (95%)	31 (86%)	3 (8%)	2 (6%)	3	8
31	E4	36/38 (95%)	31 (86%)	2 (6%)	3 (8%)	1	3
31	G4	36/38 (95%)	30 (83%)	4 (11%)	2 (6%)	3	8
32	A5	146/165 (88%)	80 (55%)	44 (30%)	22 (15%)	0	1
32	E5	142/165 (86%)	80 (56%)	39 (28%)	23 (16%)	0	0
34	BB	216/241 (90%)	147 (68%)	57 (26%)	12 (6%)	3	8
34	DB	216/241 (90%)	145 (67%)	59 (27%)	12 (6%)	3	8
34	FB	216/241 (90%)	146 (68%)	60 (28%)	10 (5%)	4	14
34	HB	216/241 (90%)	149 (69%)	55 (26%)	12 (6%)	3	8
35	BC	204/233 (88%)	180 (88%)	16 (8%)	8 (4%)	5	18
35	DC	204/233 (88%)	177 (87%)	23 (11%)	4 (2%)	11	40
35	FC	204/233 (88%)	181 (89%)	17 (8%)	6 (3%)	7	28
35	HC	204/233 (88%)	183 (90%)	16 (8%)	5 (2%)	9	32
36	BD	203/206 (98%)	157 (77%)	34 (17%)	12 (6%)	2	7
36	DD	203/206 (98%)	157 (77%)	30 (15%)	16 (8%)	1	3
36	FD	203/206 (98%)	155 (76%)	34 (17%)	14 (7%)	2	4
36	HD	203/206 (98%)	159 (78%)	35 (17%)	9 (4%)	4	15
37	BE	148/167 (89%)	124 (84%)	19 (13%)	5 (3%)	6	23
37	DE	148/167 (89%)	125 (84%)	18 (12%)	5 (3%)	6	23
37	FE	148/167 (89%)	122 (82%)	22 (15%)	4 (3%)	8	30
37	HE	148/167 (89%)	122 (82%)	22 (15%)	4 (3%)	8	30
38	BF	98/135 (73%)	73 (74%)	20 (20%)	5 (5%)	3	10
38	DF	98/135 (73%)	71 (72%)	20 (20%)	7 (7%)	2	4
38	FF	98/135 (73%)	72 (74%)	16 (16%)	10 (10%)	1	2
38	HF	98/135 (73%)	75 (76%)	18 (18%)	5 (5%)	3	10
39	BG	149/179 (83%)	126 (85%)	23 (15%)	0	100	100
39	DG	149/179 (83%)	123 (83%)	25 (17%)	1 (1%)	30	72
39	FG	149/179 (83%)	126 (85%)	23 (15%)	0	100	100
39	HG	149/179 (83%)	122 (82%)	25 (17%)	2 (1%)	18	54
40	BH	127/130 (98%)	108 (85%)	18 (14%)	1 (1%)	27	68

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	DH	127/130 (98%)	110 (87%)	15 (12%)	2 (2%)	14	47
40	FH	127/130 (98%)	113 (89%)	12 (9%)	2 (2%)	14	47
40	HH	127/130 (98%)	111 (87%)	16 (13%)	0	100	100
41	BI	125/130 (96%)	96 (77%)	21 (17%)	8 (6%)	2	6
41	DI	125/130 (96%)	99 (79%)	19 (15%)	7 (6%)	3	8
41	FI	125/130 (96%)	97 (78%)	22 (18%)	6 (5%)	4	12
41	HI	125/130 (96%)	98 (78%)	21 (17%)	6 (5%)	4	12
42	BJ	96/103 (93%)	73 (76%)	16 (17%)	7 (7%)	2	4
42	DJ	96/103 (93%)	72 (75%)	18 (19%)	6 (6%)	2	6
42	FJ	96/103 (93%)	73 (76%)	17 (18%)	6 (6%)	2	6
42	HJ	96/103 (93%)	73 (76%)	19 (20%)	4 (4%)	4	16
43	BK	115/129 (89%)	92 (80%)	17 (15%)	6 (5%)	3	10
43	DK	115/129 (89%)	90 (78%)	23 (20%)	2 (2%)	14	45
43	FK	115/129 (89%)	92 (80%)	20 (17%)	3 (3%)	8	32
43	HK	115/129 (89%)	87 (76%)	24 (21%)	4 (4%)	6	23
44	BL	121/124 (98%)	95 (78%)	17 (14%)	9 (7%)	2	4
44	DL	121/124 (98%)	95 (78%)	18 (15%)	8 (7%)	2	5
44	FL	121/124 (98%)	96 (79%)	17 (14%)	8 (7%)	2	5
44	HL	121/124 (98%)	97 (80%)	15 (12%)	9 (7%)	2	4
45	BM	112/118 (95%)	98 (88%)	8 (7%)	6 (5%)	3	9
45	DM	112/118 (95%)	99 (88%)	7 (6%)	6 (5%)	3	9
45	FM	112/118 (95%)	98 (88%)	9 (8%)	5 (4%)	4	14
45	HM	112/118 (95%)	91 (81%)	14 (12%)	7 (6%)	2	6
46	BN	92/101 (91%)	71 (77%)	18 (20%)	3 (3%)	6	24
46	DN	92/101 (91%)	71 (77%)	19 (21%)	2 (2%)	10	37
46	FN	92/101 (91%)	69 (75%)	20 (22%)	3 (3%)	6	24
46	HN	92/101 (91%)	70 (76%)	20 (22%)	2 (2%)	10	37
47	BO	86/89 (97%)	72 (84%)	12 (14%)	2 (2%)	10	36
47	DO	86/89 (97%)	73 (85%)	11 (13%)	2 (2%)	10	36
47	FO	86/89 (97%)	72 (84%)	12 (14%)	2 (2%)	10	36
47	HO	86/89 (97%)	70 (81%)	14 (16%)	2 (2%)	10	36

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	BP	80/82 (98%)	60 (75%)	16 (20%)	4 (5%)	3	11
48	DP	80/82 (98%)	62 (78%)	16 (20%)	2 (2%)	9	32
48	FP	80/82 (98%)	65 (81%)	13 (16%)	2 (2%)	9	32
48	HP	80/82 (98%)	61 (76%)	15 (19%)	4 (5%)	3	11
49	BQ	78/84 (93%)	54 (69%)	19 (24%)	5 (6%)	2	6
49	DQ	78/84 (93%)	56 (72%)	16 (20%)	6 (8%)	1	3
49	FQ	78/84 (93%)	57 (73%)	18 (23%)	3 (4%)	5	19
49	HQ	78/84 (93%)	57 (73%)	16 (20%)	5 (6%)	2	6
50	BR	53/75 (71%)	41 (77%)	12 (23%)	0	100	100
50	DR	53/75 (71%)	43 (81%)	10 (19%)	0	100	100
50	FR	53/75 (71%)	40 (76%)	13 (24%)	0	100	100
50	HR	53/75 (71%)	43 (81%)	10 (19%)	0	100	100
51	BS	77/92 (84%)	69 (90%)	7 (9%)	1 (1%)	18	54
51	DS	77/92 (84%)	70 (91%)	6 (8%)	1 (1%)	18	54
51	FS	77/92 (84%)	67 (87%)	6 (8%)	4 (5%)	3	10
51	HS	77/92 (84%)	68 (88%)	9 (12%)	0	100	100
52	BT	83/87 (95%)	66 (80%)	15 (18%)	2 (2%)	9	35
52	DT	83/87 (95%)	69 (83%)	11 (13%)	3 (4%)	5	22
52	FT	83/87 (95%)	66 (80%)	15 (18%)	2 (2%)	9	35
52	HT	83/87 (95%)	68 (82%)	14 (17%)	1 (1%)	19	57
53	BU	49/71 (69%)	25 (51%)	20 (41%)	4 (8%)	1	3
53	DU	49/71 (69%)	27 (55%)	20 (41%)	2 (4%)	4	17
53	FU	49/71 (69%)	28 (57%)	19 (39%)	2 (4%)	4	17
53	HU	49/71 (69%)	24 (49%)	22 (45%)	3 (6%)	2	7
54	BV	685/704 (97%)	559 (82%)	90 (13%)	36 (5%)	3	9
54	DV	685/704 (97%)	558 (82%)	92 (13%)	35 (5%)	3	10
54	FV	685/704 (97%)	556 (81%)	91 (13%)	38 (6%)	3	8
54	HV	685/704 (97%)	556 (81%)	91 (13%)	38 (6%)	3	8
55	BW	2/6 (33%)	0	0	2 (100%)	0	0
55	DW	2/6 (33%)	1 (50%)	1 (50%)	0	100	100
55	FW	2/6 (33%)	2 (100%)	0	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	25122/26708 (94%)	19751 (79%)	4073 (16%)	1298 (5%)	3 10

All (1298) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AC	70	LYS
3	AC	104	LEU
3	AC	121	ALA
3	AC	140	VAL
3	AC	256	THR
4	AD	43	ASP
4	AD	73	VAL
4	AD	92	VAL
4	AD	118	PHE
4	AD	122	VAL
4	AD	170	VAL
5	AE	45	ALA
5	AE	80	SER
7	AG	2	ARG
7	AG	84	LYS
7	AG	168	VAL
8	AH	3	VAL
9	AI	30	GLN
10	AJ	13	ARG
10	AJ	21	THR
10	AJ	44	TYR
10	AJ	45	THR
10	AJ	81	ILE
11	AK	35	VAL
12	AL	66	PHE
13	AM	69	PRO
13	AM	84	LYS
14	AN	119	SER
16	AP	20	ARG
16	AP	51	ASN
16	AP	93	LYS
16	AP	103	THR
19	AS	3	THR
19	AS	64	ALA
19	AS	96	ILE
20	AT	27	SER
20	AT	29	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	AT	36	LYS
20	AT	86	THR
21	AU	6	ARG
21	AU	87	GLU
21	AU	92	VAL
21	AU	98	ASN
23	AW	9	THR
23	AW	14	ASP
23	AW	30	VAL
23	AW	34	SER
23	AW	36	ILE
24	AX	76	LYS
25	AY	62	GLY
27	A0	35	GLU
28	A1	51	ALA
30	A3	22	LYS
31	A4	4	ARG
32	A5	27	VAL
32	A5	33	VAL
32	A5	48	ALA
32	A5	54	VAL
32	A5	55	VAL
32	A5	69	PHE
32	A5	88	HIS
32	A5	93	ALA
32	A5	107	GLU
32	A5	108	VAL
32	A5	120	ALA
32	A5	124	ASP
32	A5	130	PRO
34	BB	21	TYR
34	BB	33	ALA
34	BB	40	ILE
34	BB	72	LYS
34	BB	75	ALA
34	BB	128	LEU
35	BC	17	PRO
35	BC	18	TRP
35	BC	101	ILE
36	BD	24	GLY
36	BD	29	ASP
36	BD	36	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	BD	37	ALA
36	BD	175	ALA
36	BD	193	ALA
37	BE	99	ALA
38	BF	98	GLU
42	BJ	36	VAL
42	BJ	57	VAL
43	BK	14	LYS
43	BK	16	VAL
43	BK	41	ALA
43	BK	105	PHE
44	BL	3	THR
44	BL	24	LEU
44	BL	44	LYS
44	BL	76	GLU
45	BM	10	PRO
45	BM	47	GLU
45	BM	114	LYS
46	BN	52	PRO
46	BN	53	ARG
46	BN	92	GLU
49	BQ	12	VAL
49	BQ	13	VAL
49	BQ	14	SER
49	BQ	51	ASN
52	BT	86	LEU
54	BV	5	THR
54	BV	24	THR
54	BV	93	VAL
54	BV	195	ASP
54	BV	197	ASP
54	BV	200	VAL
54	BV	204	TYR
54	BV	304	ASP
54	BV	423	LYS
54	BV	454	ASN
54	BV	529	SER
54	BV	646	GLU
54	BV	647	SER
54	BV	662	GLU
54	BV	698	VAL
55	BW	4	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CC	70	LYS
3	CC	104	LEU
3	CC	140	VAL
4	CD	43	ASP
4	CD	71	ALA
4	CD	73	VAL
4	CD	118	PHE
4	CD	122	VAL
4	CD	170	VAL
5	CE	175	ILE
6	CF	10	GLU
6	CF	111	ARG
7	CG	2	ARG
7	CG	8	VAL
7	CG	9	VAL
7	CG	84	LYS
8	CH	3	VAL
8	CH	9	VAL
8	CH	11	ASN
9	CI	20	SER
9	CI	89	SER
9	CI	92	PRO
10	CJ	13	ARG
10	CJ	21	THR
10	CJ	44	TYR
10	CJ	45	THR
10	CJ	65	THR
10	CJ	81	ILE
11	CK	35	VAL
11	CK	108	ARG
12	CL	66	PHE
13	CM	2	LEU
13	CM	14	LYS
13	CM	69	PRO
14	CN	118	ARG
14	CN	119	SER
16	CP	51	ASN
16	CP	93	LYS
16	CP	103	THR
19	CS	3	THR
19	CS	14	ALA
19	CS	64	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	CT	27	SER
20	CT	29	THR
21	CU	6	ARG
21	CU	87	GLU
21	CU	88	ASP
21	CU	98	ASN
23	CW	9	THR
23	CW	14	ASP
23	CW	18	LYS
23	CW	30	VAL
23	CW	34	SER
23	CW	36	ILE
24	CX	76	LYS
26	CZ	9	THR
27	C0	23	ALA
27	C0	35	GLU
28	C1	4	ILE
28	C1	51	ALA
30	C3	22	LYS
31	C4	4	ARG
34	DB	21	TYR
34	DB	22	TRP
34	DB	33	ALA
34	DB	40	ILE
34	DB	72	LYS
34	DB	75	ALA
34	DB	119	GLN
34	DB	127	LYS
35	DC	101	ILE
36	DD	25	VAL
36	DD	27	ALA
36	DD	29	ASP
36	DD	36	GLN
36	DD	37	ALA
36	DD	193	ALA
37	DE	138	ARG
38	DF	98	GLU
39	DG	3	ARG
41	DI	56	ASP
41	DI	121	ALA
41	DI	129	LYS
42	DJ	57	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	DK	41	ALA
44	DL	3	THR
44	DL	24	LEU
44	DL	34	CYS
44	DL	44	LYS
44	DL	76	GLU
44	DL	123	LYS
45	DM	4	ILE
45	DM	114	LYS
46	DN	92	GLU
49	DQ	6	ARG
49	DQ	12	VAL
49	DQ	13	VAL
49	DQ	51	ASN
52	DT	4	ILE
52	DT	86	LEU
54	DV	5	THR
54	DV	7	ILE
54	DV	24	THR
54	DV	93	VAL
54	DV	195	ASP
54	DV	197	ASP
54	DV	200	VAL
54	DV	204	TYR
54	DV	304	ASP
54	DV	423	LYS
54	DV	454	ASN
54	DV	529	SER
54	DV	646	GLU
3	EC	70	LYS
3	EC	104	LEU
3	EC	121	ALA
3	EC	140	VAL
4	ED	43	ASP
4	ED	71	ALA
4	ED	73	VAL
4	ED	91	THR
4	ED	92	VAL
4	ED	119	ALA
4	ED	122	VAL
4	ED	170	VAL
4	ED	183	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	EE	79	ARG
5	EE	123	LYS
6	EF	10	GLU
6	EF	111	ARG
6	EF	113	PHE
6	EF	176	PHE
7	EG	84	LYS
7	EG	168	VAL
8	EH	3	VAL
8	EH	10	ALA
9	EI	12	VAL
9	EI	20	SER
9	EI	92	PRO
10	EJ	13	ARG
10	EJ	21	THR
10	EJ	44	TYR
10	EJ	45	THR
10	EJ	81	ILE
12	EL	66	PHE
13	EM	13	HIS
13	EM	69	PRO
13	EM	84	LYS
14	EN	118	ARG
16	EP	20	ARG
16	EP	93	LYS
16	EP	103	THR
19	ES	3	THR
19	ES	14	ALA
20	ET	27	SER
20	ET	29	THR
21	EU	6	ARG
21	EU	92	VAL
21	EU	98	ASN
23	EW	9	THR
23	EW	14	ASP
23	EW	18	LYS
23	EW	34	SER
23	EW	36	ILE
23	EW	56	HIS
23	EW	74	LYS
24	EX	76	LYS
27	E0	35	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	E1	4	ILE
29	E2	44	VAL
30	E3	22	LYS
31	E4	4	ARG
32	E5	27	VAL
32	E5	31	ARG
32	E5	48	ALA
32	E5	54	VAL
32	E5	58	THR
32	E5	69	PHE
32	E5	88	HIS
32	E5	92	ALA
32	E5	93	ALA
32	E5	107	GLU
32	E5	108	VAL
32	E5	120	ALA
32	E5	124	ASP
34	FB	33	ALA
34	FB	40	ILE
34	FB	72	LYS
34	FB	75	ALA
34	FB	119	GLN
34	FB	128	LEU
35	FC	101	ILE
36	FD	29	ASP
36	FD	36	GLN
36	FD	175	ALA
36	FD	193	ALA
37	FE	99	ALA
38	FF	91	ARG
38	FF	92	THR
38	FF	98	GLU
40	FH	89	LYS
41	FI	43	THR
41	FI	44	ALA
41	FI	121	ALA
42	FJ	36	VAL
42	FJ	57	VAL
43	FK	41	ALA
44	FL	3	THR
44	FL	24	LEU
44	FL	44	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	FL	76	GLU
44	FL	123	LYS
45	FM	47	GLU
46	FN	53	ARG
46	FN	92	GLU
49	FQ	51	ASN
51	FS	4	SER
53	FU	38	TYR
54	FV	6	PRO
54	FV	7	ILE
54	FV	24	THR
54	FV	93	VAL
54	FV	94	ASP
54	FV	195	ASP
54	FV	197	ASP
54	FV	200	VAL
54	FV	204	TYR
54	FV	409	MET
54	FV	423	LYS
54	FV	529	SER
54	FV	646	GLU
54	FV	662	GLU
3	GC	70	LYS
3	GC	105	ALA
3	GC	140	VAL
3	GC	256	THR
4	GD	43	ASP
4	GD	73	VAL
4	GD	119	ALA
4	GD	122	VAL
4	GD	170	VAL
5	GE	123	LYS
6	GF	93	GLU
7	GG	2	ARG
7	GG	9	VAL
7	GG	32	LEU
7	GG	84	LYS
7	GG	164	ALA
7	GG	168	VAL
8	GH	3	VAL
9	GI	77	VAL
9	GI	85	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	GI	92	PRO
10	GJ	13	ARG
10	GJ	21	THR
10	GJ	44	TYR
10	GJ	45	THR
10	GJ	81	ILE
11	GK	35	VAL
12	GL	66	PHE
12	GL	88	GLY
13	GM	2	LEU
13	GM	69	PRO
15	GO	3	LYS
15	GO	113	ALA
16	GP	4	ILE
16	GP	5	LYS
16	GP	51	ASN
16	GP	93	LYS
19	GS	3	THR
19	GS	14	ALA
19	GS	64	ALA
20	GT	27	SER
20	GT	29	THR
20	GT	36	LYS
20	GT	55	VAL
20	GT	56	GLU
21	GU	6	ARG
21	GU	88	ASP
21	GU	98	ASN
23	GW	9	THR
23	GW	14	ASP
23	GW	18	LYS
23	GW	34	SER
23	GW	36	ILE
23	GW	37	VAL
23	GW	56	HIS
25	GY	62	GLY
28	G1	4	ILE
30	G3	22	LYS
31	G4	4	ARG
34	HB	40	ILE
34	HB	72	LYS
34	HB	119	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HC	101	ILE
36	HD	25	VAL
36	HD	29	ASP
36	HD	35	GLU
36	HD	175	ALA
36	HD	193	ALA
38	HF	98	GLU
39	HG	130	ASN
41	HI	121	ALA
41	HI	129	LYS
42	HJ	28	THR
42	HJ	57	VAL
42	HJ	93	ALA
43	HK	81	ASN
44	HL	24	LEU
44	HL	34	CYS
44	HL	44	LYS
44	HL	76	GLU
44	HL	78	SER
45	HM	4	ILE
45	HM	11	ASP
45	HM	66	GLU
45	HM	114	LYS
48	HP	44	SER
49	HQ	13	VAL
49	HQ	51	ASN
49	HQ	53	CYS
52	HT	4	ILE
53	HU	11	PRO
54	HV	5	THR
54	HV	7	ILE
54	HV	24	THR
54	HV	93	VAL
54	HV	94	ASP
54	HV	195	ASP
54	HV	198	GLN
54	HV	200	VAL
54	HV	204	TYR
54	HV	300	ASP
54	HV	304	ASP
54	HV	409	MET
54	HV	423	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	HV	454	ASN
54	HV	506	ALA
54	HV	527	PRO
54	HV	544	VAL
54	HV	586	VAL
54	HV	647	SER
3	AC	64	VAL
3	AC	109	LEU
3	AC	142	ASN
3	AC	239	PHE
4	AD	107	VAL
4	AD	183	GLU
5	AE	129	PRO
7	AG	16	VAL
7	AG	31	GLU
7	AG	45	ALA
8	AH	10	ALA
9	AI	11	GLN
10	AJ	65	THR
11	AK	13	ASN
11	AK	50	GLY
11	AK	108	ARG
12	AL	88	GLY
12	AL	111	ILE
13	AM	14	LYS
13	AM	36	VAL
16	AP	113	LEU
19	AS	14	ALA
20	AT	40	LYS
21	AU	85	ARG
23	AW	10	ARG
23	AW	18	LYS
23	AW	37	VAL
23	AW	50	VAL
23	AW	56	HIS
23	AW	74	LYS
26	AZ	9	THR
27	A0	23	ALA
28	A1	4	ILE
31	A4	8	LYS
32	A5	31	ARG
32	A5	58	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	A5	92	ALA
34	BB	17	HIS
34	BB	119	GLN
35	BC	66	VAL
36	BD	25	VAL
36	BD	125	VAL
37	BE	138	ARG
41	BI	60	LYS
41	BI	121	ALA
44	BL	34	CYS
44	BL	88	LYS
44	BL	123	LYS
45	BM	4	ILE
45	BM	105	ASN
47	BO	18	ASP
52	BT	4	ILE
54	BV	7	ILE
54	BV	118	GLY
54	BV	198	GLN
54	BV	202	PHE
54	BV	300	ASP
54	BV	409	MET
54	BV	500	ASP
54	BV	649	VAL
3	CC	37	SER
3	CC	109	LEU
3	CC	121	ALA
3	CC	142	ASN
4	CD	92	VAL
4	CD	107	VAL
5	CE	45	ALA
5	CE	79	ARG
5	CE	123	LYS
6	CF	113	PHE
6	CF	175	PRO
7	CG	45	ALA
7	CG	117	PRO
7	CG	164	ALA
7	CG	168	VAL
9	CI	30	GLN
9	CI	84	GLY
11	CK	13	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	CK	50	GLY
12	CL	29	LYS
12	CL	88	GLY
12	CL	111	ILE
14	CN	56	LYS
16	CP	113	LEU
19	CS	96	ILE
20	CT	36	LYS
20	CT	40	LYS
20	CT	86	THR
21	CU	92	VAL
23	CW	37	VAL
23	CW	56	HIS
23	CW	74	LYS
26	CZ	3	THR
36	DD	125	VAL
36	DD	175	ALA
38	DF	56	LYS
38	DF	63	ASN
42	DJ	74	VAL
45	DM	47	GLU
45	DM	105	ASN
49	DQ	53	CYS
49	DQ	82	ALA
54	DV	118	GLY
54	DV	198	GLN
54	DV	202	PHE
54	DV	300	ASP
54	DV	409	MET
54	DV	500	ASP
54	DV	506	ALA
54	DV	649	VAL
54	DV	661	SER
54	DV	662	GLU
54	DV	698	VAL
3	EC	37	SER
3	EC	109	LEU
3	EC	142	ASN
3	EC	239	PHE
4	ED	99	GLU
4	ED	107	VAL
4	ED	118	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	EE	45	ALA
5	EE	80	SER
7	EG	2	ARG
7	EG	117	PRO
9	EI	19	PRO
9	EI	94	LYS
10	EJ	65	THR
11	EK	13	ASN
11	EK	35	VAL
11	EK	50	GLY
11	EK	108	ARG
12	EL	29	LYS
12	EL	88	GLY
12	EL	111	ILE
16	EP	51	ASN
17	EQ	87	VAL
19	ES	64	ALA
19	ES	96	ILE
20	ET	36	LYS
20	ET	86	THR
21	EU	51	LEU
21	EU	52	ASN
21	EU	85	ARG
21	EU	87	GLU
21	EU	88	ASP
23	EW	29	SER
23	EW	30	VAL
23	EW	37	VAL
23	EW	50	VAL
25	EY	62	GLY
27	E0	23	ALA
32	E5	33	VAL
32	E5	55	VAL
32	E5	132	TYR
34	FB	154	GLY
34	FB	163	ILE
35	FC	61	ALA
36	FD	23	SER
36	FD	35	GLU
37	FE	138	ARG
38	FF	56	LYS
41	FI	46	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	FJ	74	VAL
44	FL	34	CYS
45	FM	4	ILE
45	FM	105	ASN
48	FP	80	LYS
51	FS	5	LEU
54	FV	5	THR
54	FV	118	GLY
54	FV	198	GLN
54	FV	300	ASP
54	FV	304	ASP
54	FV	454	ASN
54	FV	506	ALA
54	FV	649	VAL
54	FV	698	VAL
3	GC	109	LEU
3	GC	121	ALA
3	GC	142	ASN
3	GC	270	ARG
4	GD	107	VAL
4	GD	118	PHE
5	GE	45	ALA
5	GE	79	ARG
5	GE	80	SER
5	GE	129	PRO
6	GF	175	PRO
7	GG	16	VAL
7	GG	45	ALA
7	GG	117	PRO
9	GI	30	GLN
9	GI	78	LEU
9	GI	138	VAL
10	GJ	65	THR
10	GJ	74	TYR
11	GK	50	GLY
11	GK	108	ARG
12	GL	111	ILE
13	GM	14	LYS
14	GN	118	ARG
16	GP	103	THR
16	GP	104	GLY
16	GP	113	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	GQ	5	ARG
17	GQ	86	SER
19	GS	96	ILE
20	GT	40	LYS
20	GT	86	THR
21	GU	53	GLN
21	GU	54	PRO
21	GU	85	ARG
21	GU	87	GLU
23	GW	30	VAL
23	GW	50	VAL
23	GW	74	LYS
26	GZ	9	THR
27	G0	23	ALA
27	G0	35	GLU
34	HB	17	HIS
34	HB	33	ALA
34	HB	75	ALA
34	HB	163	ILE
36	HD	36	GLN
36	HD	125	VAL
37	HE	110	ALA
37	HE	138	ARG
37	HE	158	GLY
41	HI	58	VAL
43	HK	41	ALA
43	HK	69	ARG
44	HL	3	THR
44	HL	88	LYS
46	HN	92	GLU
47	HO	18	ASP
47	HO	46	HIS
48	HP	42	ILE
54	HV	118	GLY
54	HV	197	ASP
54	HV	202	PHE
54	HV	509	SER
54	HV	649	VAL
54	HV	662	GLU
54	HV	698	VAL
3	AC	37	SER
3	AC	94	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	71	ALA
5	AE	70	SER
5	AE	79	ARG
5	AE	123	LYS
6	AF	113	PHE
7	AG	97	VAL
7	AG	166	GLU
8	AH	9	VAL
9	AI	3	LYS
9	AI	20	SER
9	AI	64	ARG
10	AJ	111	LYS
11	AK	46	ALA
11	AK	119	ALA
12	AL	29	LYS
14	AN	56	LYS
17	AQ	5	ARG
21	AU	51	LEU
23	AW	76	ARG
26	AZ	3	THR
28	A1	50	GLU
32	A5	89	PRO
32	A5	118	ILE
32	A5	119	PRO
34	BB	163	ILE
35	BC	12	LEU
35	BC	61	ALA
36	BD	166	GLU
37	BE	98	PRO
37	BE	110	ALA
38	BF	7	VAL
38	BF	56	LYS
38	BF	94	HIS
41	BI	129	LYS
42	BJ	74	VAL
42	BJ	89	ARG
44	BL	74	LEU
48	BP	42	ILE
53	BU	36	GLU
54	BV	6	PRO
54	BV	323	LYS
54	BV	408	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	BV	506	ALA
54	BV	527	PRO
3	CC	239	PHE
3	CC	256	THR
4	CD	183	GLU
5	CE	70	SER
5	CE	80	SER
7	CG	7	PRO
7	CG	16	VAL
9	CI	18	ASN
10	CJ	74	TYR
16	CP	20	ARG
17	CQ	5	ARG
21	CU	52	ASN
21	CU	85	ARG
23	CW	10	ARG
23	CW	50	VAL
23	CW	78	PHE
25	CY	24	GLU
34	DB	17	HIS
34	DB	128	LEU
34	DB	163	ILE
35	DC	61	ALA
35	DC	66	VAL
38	DF	62	MET
42	DJ	35	GLN
42	DJ	58	ASN
44	DL	88	LYS
45	DM	11	ASP
47	DO	18	ASP
47	DO	46	HIS
54	DV	6	PRO
54	DV	94	ASP
54	DV	647	SER
3	EC	94	LEU
3	EC	256	THR
4	ED	145	SER
5	EE	6	LYS
7	EG	45	ALA
10	EJ	74	TYR
11	EK	46	ALA
12	EL	41	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	EM	14	LYS
16	EP	65	ASN
16	EP	113	LEU
17	EQ	86	SER
17	EQ	88	GLU
20	ET	40	LYS
21	EU	81	ARG
23	EW	78	PHE
24	EX	69	GLU
25	EY	24	GLU
26	EZ	3	THR
26	EZ	9	THR
30	E3	31	ILE
32	E5	90	GLY
32	E5	118	ILE
32	E5	119	PRO
34	FB	17	HIS
35	FC	17	PRO
35	FC	66	VAL
36	FD	125	VAL
37	FE	110	ALA
38	FF	63	ASN
38	FF	94	HIS
44	FL	74	LEU
44	FL	88	LYS
45	FM	11	ASP
45	FM	114	LYS
47	FO	46	HIS
49	FQ	53	CYS
54	FV	202	PHE
54	FV	323	LYS
54	FV	408	ARG
54	FV	500	ASP
54	FV	647	SER
3	GC	37	SER
3	GC	94	LEU
3	GC	239	PHE
4	GD	145	SER
4	GD	183	GLU
7	GG	7	PRO
8	GH	9	VAL
9	GI	83	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	GI	87	SER
11	GK	13	ASN
12	GL	29	LYS
13	GM	134	THR
15	GO	60	GLU
16	GP	20	ARG
17	GQ	90	ASP
19	GS	19	LEU
23	GW	78	PHE
26	GZ	3	THR
30	G3	31	ILE
35	HC	61	ALA
38	HF	56	LYS
39	HG	146	GLU
44	HL	123	LYS
45	HM	105	ASN
48	HP	80	LYS
49	HQ	52	GLU
54	HV	500	ASP
3	AC	59	GLN
3	AC	196	ASN
6	AF	2	LYS
6	AF	10	GLU
7	AG	33	THR
7	AG	44	HIS
7	AG	117	PRO
8	AH	8	LYS
8	AH	15	LEU
10	AJ	74	TYR
11	AK	93	GLN
17	AQ	87	VAL
19	AS	19	LEU
20	AT	84	TYR
23	AW	17	ALA
23	AW	29	SER
25	AY	24	GLU
27	A0	54	ILE
31	A4	16	ILE
36	BD	153	SER
41	BI	56	ASP
43	BK	15	GLN
43	BK	17	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
47	BO	46	HIS
51	BS	6	LYS
53	BU	38	TYR
54	BV	305	THR
54	BV	311	ALA
54	BV	413	GLU
54	BV	648	GLU
55	BW	3	SER
3	CC	64	VAL
3	CC	94	LEU
4	CD	99	GLU
4	CD	109	VAL
4	CD	145	SER
5	CE	6	LYS
6	CF	2	LYS
7	CG	175	LYS
8	CH	8	LYS
9	CI	64	ARG
9	CI	110	GLN
11	CK	46	ALA
11	CK	93	GLN
13	CM	77	PRO
13	CM	134	THR
17	CQ	86	SER
17	CQ	87	VAL
17	CQ	90	ASP
18	CR	98	ILE
20	CT	84	TYR
21	CU	81	ARG
22	CV	69	GLU
24	CX	17	ARG
24	CX	53	LYS
31	C4	16	ILE
36	DD	151	LYS
37	DE	12	GLN
37	DE	45	ARG
37	DE	110	ALA
38	DF	54	LEU
38	DF	94	HIS
41	DI	120	LYS
44	DL	74	LEU
45	DM	5	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	DV	305	THR
54	DV	323	LYS
54	DV	413	GLU
5	EE	70	SER
5	EE	129	PRO
6	EF	2	LYS
7	EG	16	VAL
7	EG	33	THR
7	EG	97	VAL
7	EG	151	ARG
7	EG	175	LYS
8	EH	8	LYS
8	EH	9	VAL
9	EI	64	ARG
11	EK	3	GLN
11	EK	93	GLN
13	EM	134	THR
14	EN	56	LYS
17	EQ	5	ARG
19	ES	18	ARG
21	EU	54	PRO
32	E5	135	ALA
34	FB	22	TRP
36	FD	85	ASN
38	FF	62	MET
46	FN	62	ASN
47	FO	18	ASP
48	FP	46	LYS
51	FS	6	LYS
52	FT	6	SER
54	FV	305	THR
54	FV	345	SER
54	FV	413	GLU
3	GC	64	VAL
4	GD	71	ALA
4	GD	109	VAL
5	GE	153	LEU
7	GG	31	GLU
7	GG	118	ALA
8	GH	8	LYS
11	GK	46	ALA
11	GK	93	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	GL	41	ARG
15	GO	99	TYR
16	GP	92	ARG
20	GT	88	LYS
22	GV	71	LYS
23	GW	29	SER
25	GY	24	GLU
34	HB	21	TYR
34	HB	135	MET
35	HC	66	VAL
37	HE	102	GLY
38	HF	94	HIS
38	HF	99	ALA
41	HI	120	LYS
42	HJ	74	VAL
44	HL	74	LEU
45	HM	5	ALA
45	HM	47	GLU
49	HQ	6	ARG
53	HU	38	TYR
54	HV	305	THR
54	HV	323	LYS
54	HV	408	ARG
54	HV	413	GLU
54	HV	646	GLU
54	HV	648	GLU
3	AC	232	GLY
4	AD	109	VAL
5	AE	6	LYS
5	AE	13	THR
5	AE	83	VAL
5	AE	96	VAL
6	AF	132	ARG
6	AF	149	ARG
6	AF	173	ASP
7	AG	113	ASP
7	AG	118	ALA
7	AG	164	ALA
9	AI	129	GLU
11	AK	6	THR
11	AK	118	LEU
12	AL	19	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	AL	41	ARG
12	AL	82	LEU
12	AL	94	THR
13	AM	73	ILE
13	AM	77	PRO
17	AQ	88	GLU
17	AQ	90	ASP
18	AR	40	MET
18	AR	91	GLN
18	AR	98	ILE
20	AT	55	VAL
21	AU	8	ASP
21	AU	81	ARG
21	AU	88	ASP
23	AW	78	PHE
24	AX	17	ARG
30	A3	31	ILE
32	A5	29	ASP
32	A5	80	THR
34	BB	154	GLY
38	BF	54	LEU
41	BI	96	SER
41	BI	120	LYS
42	BJ	93	ALA
44	BL	98	VAL
48	BP	79	ASN
49	BQ	71	LYS
53	BU	37	PHE
54	BV	94	ASP
54	BV	308	GLU
54	BV	661	SER
3	CC	59	GLN
3	CC	200	MET
3	CC	238	ASN
4	CD	11	MET
5	CE	83	VAL
5	CE	96	VAL
7	CG	97	VAL
7	CG	166	GLU
9	CI	106	GLN
10	CJ	4	PHE
12	CL	19	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	CL	41	ARG
12	CL	94	THR
13	CM	73	ILE
15	CO	77	ALA
16	CP	92	ARG
16	CP	105	LYS
18	CR	91	GLN
20	CT	55	VAL
23	CW	52	CYS
27	C0	54	ILE
30	C3	31	ILE
34	DB	62	ARG
36	DD	33	LYS
36	DD	148	LYS
36	DD	154	ARG
51	DS	6	LYS
52	DT	7	ALA
53	DU	38	TYR
54	DV	311	ALA
54	DV	408	ARG
54	DV	527	PRO
54	DV	569	TYR
3	EC	59	GLN
3	EC	64	VAL
4	ED	109	VAL
4	ED	182	ALA
5	EE	7	ASP
5	EE	83	VAL
5	EE	96	VAL
6	EF	133	GLU
7	EG	118	ALA
9	EI	89	SER
11	EK	6	THR
11	EK	118	LEU
11	EK	119	ALA
12	EL	40	SER
18	ER	40	MET
18	ER	98	ILE
20	ET	55	VAL
20	ET	84	TYR
21	EU	8	ASP
22	EV	69	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	EW	76	ARG
25	EY	9	LYS
27	E0	54	ILE
31	E4	8	LYS
31	E4	16	ILE
32	E5	36	ASP
32	E5	89	PRO
35	FC	18	TRP
35	FC	146	ALA
36	FD	166	GLU
36	FD	167	LYS
38	FF	99	ALA
41	FI	58	VAL
42	FJ	58	ASN
42	FJ	75	ASP
42	FJ	89	ARG
43	FK	126	LYS
43	FK	127	ARG
49	FQ	71	LYS
52	FT	68	HIS
54	FV	92	HIS
54	FV	196	ALA
54	FV	661	SER
3	GC	59	GLN
3	GC	196	ASN
4	GD	175	LEU
5	GE	70	SER
5	GE	83	VAL
5	GE	96	VAL
7	GG	97	VAL
7	GG	170	THR
9	GI	20	SER
9	GI	89	SER
10	GJ	111	LYS
11	GK	6	THR
12	GL	19	LEU
13	GM	73	ILE
13	GM	77	PRO
17	GQ	85	ALA
18	GR	91	GLN
18	GR	98	ILE
20	GT	84	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	GU	81	ARG
23	GW	76	ARG
31	G4	16	ILE
34	HB	200	PRO
35	HC	146	ALA
36	HD	37	ALA
38	HF	7	VAL
41	HI	107	ASP
43	HK	17	SER
48	HP	77	GLU
54	HV	308	GLU
54	HV	550	ILE
3	AC	238	ASN
4	AD	11	MET
4	AD	95	SER
4	AD	145	SER
5	AE	11	ALA
5	AE	148	ILE
7	AG	151	ARG
11	AK	75	SER
13	AM	134	THR
15	AO	77	ALA
16	AP	63	ILE
17	AQ	86	SER
22	AV	71	LYS
24	AX	53	LYS
32	A5	32	GLY
34	BB	32	GLY
36	BD	85	ASN
36	BD	192	SER
41	BI	39	PHE
42	BJ	58	ASN
42	BJ	75	ASP
45	BM	66	GLU
48	BP	43	ALA
53	BU	41	PRO
54	BV	569	TYR
3	CC	196	ASN
3	CC	232	GLY
8	CH	15	LEU
8	CH	28	ASN
11	CK	119	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	CP	63	ILE
20	CT	28	ASN
23	CW	76	ARG
35	DC	146	ALA
36	DD	32	CYS
36	DD	126	ASN
36	DD	192	SER
38	DF	7	VAL
40	DH	50	LYS
41	DI	9	THR
41	DI	96	SER
41	DI	107	ASP
42	DJ	36	VAL
42	DJ	75	ASP
43	DK	100	LEU
46	DN	62	ASN
48	DP	77	GLU
53	DU	9	ASN
3	EC	232	GLY
3	EC	238	ASN
4	ED	11	MET
5	EE	46	GLN
6	EF	132	ARG
10	EJ	111	LYS
12	EL	94	THR
13	EM	73	ILE
14	EN	102	PHE
16	EP	63	ILE
17	EQ	90	ASP
18	ER	91	GLN
21	EU	99	SER
21	EU	101	THR
23	EW	10	ARG
23	EW	23	LYS
23	EW	47	GLY
25	EY	17	GLU
32	E5	32	GLY
36	FD	151	LYS
36	FD	153	SER
36	FD	192	SER
41	FI	13	LYS
54	FV	311	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	FV	527	PRO
54	FV	569	TYR
4	GD	99	GLU
5	GE	6	LYS
6	GF	40	GLY
9	GI	64	ARG
10	GJ	42	ALA
11	GK	118	LEU
11	GK	119	ALA
12	GL	15	ALA
16	GP	63	ILE
17	GQ	87	VAL
18	GR	40	MET
23	GW	16	GLU
24	GX	17	ARG
28	G1	50	GLU
41	HI	96	SER
46	HN	62	ASN
54	HV	6	PRO
9	AI	92	PRO
40	BH	78	VAL
5	CE	129	PRO
5	CE	174	GLY
7	GG	8	VAL
9	GI	22	PRO
34	HB	32	GLY
16	AP	83	ILE
23	AW	41	GLY
37	BE	123	VAL
4	CD	144	GLY
16	CP	4	ILE
48	DP	42	ILE
5	EE	148	ILE
38	FF	7	VAL
5	GE	148	ILE
27	G0	54	ILE
35	HC	15	VAL
7	AG	119	GLY
20	AT	16	VAL
23	AW	47	GLY
35	BC	108	LYS
48	BP	49	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	CE	148	ILE
7	CG	60	GLY
9	CI	24	GLY
36	DD	168	PRO
37	DE	137	VAL
4	ED	143	PRO
4	ED	144	GLY
36	FD	168	PRO
38	FF	85	ILE
4	GD	144	GLY
5	GE	42	GLY
16	GP	83	ILE
21	GU	38	ILE
53	HU	27	GLY
29	A2	44	VAL
34	BB	148	GLY
41	BI	58	VAL
6	CF	40	GLY
11	CK	72	PRO
13	CM	23	GLY
18	CR	101	ILE
29	C2	44	VAL
8	EH	16	GLY
37	FE	51	GLY
53	FU	27	GLY
54	FV	91	GLY
16	GP	34	GLY
18	GR	51	VAL
29	G2	44	VAL
34	HB	154	GLY
36	HD	168	PRO
7	AG	30	GLY
35	BC	15	VAL
21	CU	38	ILE
21	CU	54	PRO
40	DH	78	VAL
54	DV	120	GLN
11	EK	72	PRO
40	FH	78	VAL
51	FS	29	LYS
4	GD	92	VAL
54	HV	91	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	HV	120	GLN

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	AC	216/218 (99%)	203 (94%)	13 (6%)	27	63
3	CC	216/218 (99%)	201 (93%)	15 (7%)	22	54
3	EC	216/218 (99%)	200 (93%)	16 (7%)	20	50
3	GC	216/218 (99%)	198 (92%)	18 (8%)	16	43
4	AD	164/164 (100%)	153 (93%)	11 (7%)	23	56
4	CD	164/164 (100%)	156 (95%)	8 (5%)	35	73
4	ED	164/164 (100%)	155 (94%)	9 (6%)	30	68
4	GD	164/164 (100%)	156 (95%)	8 (5%)	35	73
5	AE	165/165 (100%)	154 (93%)	11 (7%)	23	56
5	CE	165/165 (100%)	158 (96%)	7 (4%)	40	79
5	EE	165/165 (100%)	153 (93%)	12 (7%)	20	51
5	GE	165/165 (100%)	160 (97%)	5 (3%)	53	89
6	AF	148/150 (99%)	140 (95%)	8 (5%)	31	69
6	CF	148/150 (99%)	139 (94%)	9 (6%)	26	62
6	EF	148/150 (99%)	138 (93%)	10 (7%)	22	55
6	GF	148/150 (99%)	144 (97%)	4 (3%)	57	90
7	AG	137/138 (99%)	126 (92%)	11 (8%)	17	45
7	CG	137/138 (99%)	126 (92%)	11 (8%)	17	45
7	EG	137/138 (99%)	125 (91%)	12 (9%)	14	40
7	GG	137/138 (99%)	130 (95%)	7 (5%)	33	72
8	AH	40/40 (100%)	38 (95%)	2 (5%)	34	73
8	CH	40/40 (100%)	39 (98%)	1 (2%)	60	91
8	EH	40/40 (100%)	36 (90%)	4 (10%)	11	32
8	GH	40/40 (100%)	36 (90%)	4 (10%)	11	32

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	AI	109/110 (99%)	105 (96%)	4 (4%)	45	84
9	CI	109/110 (99%)	108 (99%)	1 (1%)	87	97
9	EI	109/110 (99%)	108 (99%)	1 (1%)	87	97
9	GI	109/110 (99%)	108 (99%)	1 (1%)	87	97
10	AJ	116/116 (100%)	97 (84%)	19 (16%)	3	10
10	CJ	116/116 (100%)	102 (88%)	14 (12%)	7	20
10	EJ	116/116 (100%)	96 (83%)	20 (17%)	3	8
10	GJ	116/116 (100%)	103 (89%)	13 (11%)	9	25
11	AK	103/104 (99%)	93 (90%)	10 (10%)	12	35
11	CK	103/104 (99%)	94 (91%)	9 (9%)	15	41
11	EK	103/104 (99%)	95 (92%)	8 (8%)	18	46
11	GK	103/104 (99%)	96 (93%)	7 (7%)	22	55
12	AL	102/103 (99%)	96 (94%)	6 (6%)	28	64
12	CL	102/103 (99%)	96 (94%)	6 (6%)	28	64
12	EL	102/103 (99%)	97 (95%)	5 (5%)	35	73
12	GL	102/103 (99%)	94 (92%)	8 (8%)	18	46
13	AM	109/109 (100%)	94 (86%)	15 (14%)	5	14
13	CM	109/109 (100%)	96 (88%)	13 (12%)	8	21
13	EM	109/109 (100%)	100 (92%)	9 (8%)	16	43
13	GM	109/109 (100%)	102 (94%)	7 (6%)	25	59
14	AN	100/103 (97%)	94 (94%)	6 (6%)	27	63
14	CN	100/103 (97%)	93 (93%)	7 (7%)	21	53
14	EN	100/103 (97%)	98 (98%)	2 (2%)	68	92
14	GN	100/103 (97%)	96 (96%)	4 (4%)	42	81
15	AO	86/87 (99%)	81 (94%)	5 (6%)	28	65
15	CO	86/87 (99%)	80 (93%)	6 (7%)	21	53
15	EO	86/87 (99%)	79 (92%)	7 (8%)	17	45
15	GO	86/87 (99%)	83 (96%)	3 (4%)	48	85
16	AP	99/100 (99%)	85 (86%)	14 (14%)	5	14
16	CP	99/100 (99%)	88 (89%)	11 (11%)	9	26
16	EP	99/100 (99%)	91 (92%)	8 (8%)	17	45

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	GP	99/100 (99%)	88 (89%)	11 (11%)	9	26
17	AQ	89/90 (99%)	83 (93%)	6 (7%)	23	56
17	CQ	89/90 (99%)	82 (92%)	7 (8%)	18	46
17	EQ	89/90 (99%)	80 (90%)	9 (10%)	11	32
17	GQ	89/90 (99%)	86 (97%)	3 (3%)	49	86
18	AR	84/84 (100%)	79 (94%)	5 (6%)	27	63
18	CR	84/84 (100%)	78 (93%)	6 (7%)	21	52
18	ER	84/84 (100%)	77 (92%)	7 (8%)	16	43
18	GR	84/84 (100%)	80 (95%)	4 (5%)	35	74
19	AS	93/93 (100%)	85 (91%)	8 (9%)	15	41
19	CS	93/93 (100%)	86 (92%)	7 (8%)	19	49
19	ES	93/93 (100%)	84 (90%)	9 (10%)	12	35
19	GS	93/93 (100%)	86 (92%)	7 (8%)	19	49
20	AT	80/84 (95%)	71 (89%)	9 (11%)	9	25
20	CT	80/84 (95%)	77 (96%)	3 (4%)	44	83
20	ET	80/84 (95%)	73 (91%)	7 (9%)	14	40
20	GT	80/84 (95%)	76 (95%)	4 (5%)	34	73
21	AU	83/85 (98%)	79 (95%)	4 (5%)	35	74
21	CU	83/85 (98%)	80 (96%)	3 (4%)	47	85
21	EU	83/85 (98%)	76 (92%)	7 (8%)	16	42
21	GU	83/85 (98%)	80 (96%)	3 (4%)	47	85
22	AV	78/78 (100%)	73 (94%)	5 (6%)	25	59
22	CV	78/78 (100%)	75 (96%)	3 (4%)	44	83
22	EV	78/78 (100%)	76 (97%)	2 (3%)	59	90
22	GV	78/78 (100%)	75 (96%)	3 (4%)	44	83
23	AW	59/63 (94%)	49 (83%)	10 (17%)	3	9
23	CW	59/63 (94%)	51 (86%)	8 (14%)	5	15
23	EW	59/63 (94%)	52 (88%)	7 (12%)	8	21
23	GW	59/63 (94%)	53 (90%)	6 (10%)	11	31
24	AX	67/68 (98%)	61 (91%)	6 (9%)	14	39
24	CX	67/68 (98%)	60 (90%)	7 (10%)	10	29

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	EX	67/68 (98%)	60 (90%)	7 (10%)	10	29
24	GX	67/68 (98%)	61 (91%)	6 (9%)	14	39
25	AY	55/55 (100%)	49 (89%)	6 (11%)	9	26
25	CY	55/55 (100%)	53 (96%)	2 (4%)	47	85
25	EY	55/55 (100%)	49 (89%)	6 (11%)	9	26
25	GY	55/55 (100%)	51 (93%)	4 (7%)	20	51
26	AZ	48/49 (98%)	44 (92%)	4 (8%)	16	43
26	CZ	48/49 (98%)	43 (90%)	5 (10%)	10	29
26	EZ	48/49 (98%)	44 (92%)	4 (8%)	16	43
26	GZ	48/49 (98%)	43 (90%)	5 (10%)	10	29
27	A0	47/48 (98%)	47 (100%)	0	100	100
27	C0	47/48 (98%)	45 (96%)	2 (4%)	40	78
27	E0	47/48 (98%)	45 (96%)	2 (4%)	40	78
27	G0	47/48 (98%)	47 (100%)	0	100	100
28	A1	45/49 (92%)	42 (93%)	3 (7%)	23	56
28	C1	45/49 (92%)	41 (91%)	4 (9%)	14	40
28	E1	45/49 (92%)	43 (96%)	2 (4%)	39	77
28	G1	45/49 (92%)	44 (98%)	1 (2%)	64	92
29	A2	38/38 (100%)	37 (97%)	1 (3%)	59	90
29	C2	38/38 (100%)	35 (92%)	3 (8%)	18	46
29	E2	38/38 (100%)	33 (87%)	5 (13%)	6	16
29	G2	38/38 (100%)	34 (90%)	4 (10%)	10	29
30	A3	51/52 (98%)	49 (96%)	2 (4%)	43	82
30	C3	51/52 (98%)	50 (98%)	1 (2%)	68	92
30	E3	51/52 (98%)	47 (92%)	4 (8%)	18	46
30	G3	51/52 (98%)	47 (92%)	4 (8%)	18	46
31	A4	34/34 (100%)	32 (94%)	2 (6%)	28	64
31	C4	34/34 (100%)	32 (94%)	2 (6%)	28	64
31	E4	34/34 (100%)	32 (94%)	2 (6%)	28	64
31	G4	34/34 (100%)	31 (91%)	3 (9%)	14	40
32	A5	112/123 (91%)	95 (85%)	17 (15%)	4	12

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	E5	110/123 (89%)	96 (87%)	14 (13%)	6	18
34	BB	180/199 (90%)	171 (95%)	9 (5%)	34	73
34	DB	180/199 (90%)	171 (95%)	9 (5%)	34	73
34	FB	180/199 (90%)	172 (96%)	8 (4%)	39	77
34	HB	180/199 (90%)	170 (94%)	10 (6%)	30	66
35	BC	170/190 (90%)	167 (98%)	3 (2%)	71	94
35	DC	170/190 (90%)	166 (98%)	4 (2%)	61	91
35	FC	170/190 (90%)	158 (93%)	12 (7%)	21	52
35	HC	170/190 (90%)	164 (96%)	6 (4%)	48	85
36	BD	172/173 (99%)	163 (95%)	9 (5%)	32	71
36	DD	172/173 (99%)	162 (94%)	10 (6%)	28	65
36	FD	172/173 (99%)	162 (94%)	10 (6%)	28	65
36	HD	172/173 (99%)	163 (95%)	9 (5%)	32	71
37	BE	113/126 (90%)	107 (95%)	6 (5%)	32	70
37	DE	113/126 (90%)	110 (97%)	3 (3%)	57	90
37	FE	113/126 (90%)	104 (92%)	9 (8%)	17	45
37	HE	113/126 (90%)	106 (94%)	7 (6%)	26	61
38	BF	87/116 (75%)	83 (95%)	4 (5%)	37	76
38	DF	87/116 (75%)	85 (98%)	2 (2%)	63	92
38	FF	87/116 (75%)	84 (97%)	3 (3%)	49	86
38	HF	87/116 (75%)	85 (98%)	2 (2%)	63	92
39	BG	124/147 (84%)	122 (98%)	2 (2%)	75	95
39	DG	124/147 (84%)	121 (98%)	3 (2%)	61	91
39	FG	124/147 (84%)	120 (97%)	4 (3%)	51	88
39	HG	124/147 (84%)	123 (99%)	1 (1%)	89	97
40	BH	104/105 (99%)	98 (94%)	6 (6%)	28	65
40	DH	104/105 (99%)	97 (93%)	7 (7%)	23	56
40	FH	104/105 (99%)	97 (93%)	7 (7%)	23	56
40	HH	104/105 (99%)	98 (94%)	6 (6%)	28	65
41	BI	105/107 (98%)	96 (91%)	9 (9%)	15	41
41	DI	105/107 (98%)	102 (97%)	3 (3%)	55	89

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	FI	105/107 (98%)	98 (93%)	7 (7%)	23	56
41	HI	105/107 (98%)	99 (94%)	6 (6%)	29	66
42	BJ	86/90 (96%)	85 (99%)	1 (1%)	82	96
42	DJ	86/90 (96%)	80 (93%)	6 (7%)	21	53
42	FJ	86/90 (96%)	84 (98%)	2 (2%)	63	92
42	HJ	86/90 (96%)	83 (96%)	3 (4%)	48	85
43	BK	90/99 (91%)	87 (97%)	3 (3%)	50	87
43	DK	90/99 (91%)	88 (98%)	2 (2%)	64	92
43	FK	90/99 (91%)	85 (94%)	5 (6%)	30	66
43	HK	90/99 (91%)	82 (91%)	8 (9%)	14	40
44	BL	103/104 (99%)	100 (97%)	3 (3%)	55	89
44	DL	103/104 (99%)	101 (98%)	2 (2%)	69	93
44	FL	103/104 (99%)	97 (94%)	6 (6%)	28	65
44	HL	103/104 (99%)	94 (91%)	9 (9%)	15	41
45	BM	92/96 (96%)	89 (97%)	3 (3%)	50	87
45	DM	92/96 (96%)	92 (100%)	0	100	100
45	FM	92/96 (96%)	92 (100%)	0	100	100
45	HM	92/96 (96%)	92 (100%)	0	100	100
46	BN	79/84 (94%)	79 (100%)	0	100	100
46	DN	79/84 (94%)	78 (99%)	1 (1%)	80	96
46	FN	79/84 (94%)	75 (95%)	4 (5%)	33	72
46	HN	79/84 (94%)	77 (98%)	2 (2%)	60	91
47	BO	76/77 (99%)	72 (95%)	4 (5%)	32	70
47	DO	76/77 (99%)	74 (97%)	2 (3%)	59	90
47	FO	76/77 (99%)	74 (97%)	2 (3%)	59	90
47	HO	76/77 (99%)	74 (97%)	2 (3%)	59	90
48	BP	65/65 (100%)	63 (97%)	2 (3%)	52	88
48	DP	65/65 (100%)	60 (92%)	5 (8%)	18	47
48	FP	65/65 (100%)	64 (98%)	1 (2%)	76	95
48	HP	65/65 (100%)	63 (97%)	2 (3%)	52	88
49	BQ	74/78 (95%)	70 (95%)	4 (5%)	31	69

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	DQ	74/78 (95%)	72 (97%)	2 (3%)	57	90
49	FQ	74/78 (95%)	73 (99%)	1 (1%)	78	96
49	HQ	74/78 (95%)	69 (93%)	5 (7%)	22	55
50	BR	48/65 (74%)	48 (100%)	0	100	100
50	DR	48/65 (74%)	48 (100%)	0	100	100
50	FR	48/65 (74%)	46 (96%)	2 (4%)	40	79
50	HR	48/65 (74%)	48 (100%)	0	100	100
51	BS	70/79 (89%)	69 (99%)	1 (1%)	78	96
51	DS	70/79 (89%)	67 (96%)	3 (4%)	40	78
51	FS	70/79 (89%)	64 (91%)	6 (9%)	15	41
51	HS	70/79 (89%)	67 (96%)	3 (4%)	40	78
52	BT	65/66 (98%)	60 (92%)	5 (8%)	18	47
52	DT	65/66 (98%)	58 (89%)	7 (11%)	9	27
52	FT	65/66 (98%)	60 (92%)	5 (8%)	18	47
52	HT	65/66 (98%)	60 (92%)	5 (8%)	18	47
53	BU	44/61 (72%)	42 (96%)	2 (4%)	38	77
53	DU	44/61 (72%)	41 (93%)	3 (7%)	22	55
53	FU	44/61 (72%)	41 (93%)	3 (7%)	22	55
53	HU	44/61 (72%)	42 (96%)	2 (4%)	38	77
54	BV	557/578 (96%)	503 (90%)	54 (10%)	12	35
54	DV	557/578 (96%)	508 (91%)	49 (9%)	14	40
54	FV	557/578 (96%)	508 (91%)	49 (9%)	14	40
54	HV	557/578 (96%)	507 (91%)	50 (9%)	14	39
55	BW	2/2 (100%)	1 (50%)	1 (50%)	0	0
55	DW	2/2 (100%)	1 (50%)	1 (50%)	0	0
55	FW	2/2 (100%)	2 (100%)	0	100	100
All	All	20824/21780 (96%)	19507 (94%)	1317 (6%)	25	60

All (1317) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AC	8	THR
3	AC	12	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	104	LEU
3	AC	109	LEU
3	AC	120	ASP
3	AC	140	VAL
3	AC	155	ARG
3	AC	176	ARG
3	AC	191	LEU
3	AC	212	TRP
3	AC	241	LYS
3	AC	251	THR
3	AC	270	ARG
4	AD	9	VAL
4	AD	25	THR
4	AD	103	ASP
4	AD	129	THR
4	AD	167	ASN
4	AD	170	VAL
4	AD	177	VAL
4	AD	183	GLU
4	AD	186	LEU
4	AD	202	ILE
4	AD	203	VAL
5	AE	12	LEU
5	AE	28	VAL
5	AE	40	ARG
5	AE	44	ARG
5	AE	90	GLN
5	AE	109	LEU
5	AE	149	ILE
5	AE	164	LEU
5	AE	167	VAL
5	AE	176	ASP
5	AE	178	VAL
6	AF	35	LEU
6	AF	41	GLU
6	AF	50	ASP
6	AF	98	PHE
6	AF	114	ARG
6	AF	137	PHE
6	AF	142	TYR
6	AF	153	ILE
7	AG	3	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	16	VAL
7	AG	21	GLN
7	AG	35	THR
7	AG	68	ARG
7	AG	84	LYS
7	AG	103	ASN
7	AG	132	LEU
7	AG	140	ILE
7	AG	151	ARG
7	AG	163	TYR
8	AH	3	VAL
8	AH	48	GLU
9	AI	7	TYR
9	AI	23	VAL
9	AI	94	LYS
9	AI	102	ARG
10	AJ	2	LYS
10	AJ	3	THR
10	AJ	17	VAL
10	AJ	24	THR
10	AJ	25	LEU
10	AJ	28	LEU
10	AJ	30	THR
10	AJ	36	LEU
10	AJ	44	TYR
10	AJ	54	ILE
10	AJ	55	ILE
10	AJ	65	THR
10	AJ	69	ARG
10	AJ	80	HIS
10	AJ	95	ARG
10	AJ	105	VAL
10	AJ	111	LYS
10	AJ	131	ASN
10	AJ	140	LEU
11	AK	10	VAL
11	AK	13	ASN
11	AK	23	LYS
11	AK	45	GLU
11	AK	54	LYS
11	AK	61	VAL
11	AK	73	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AK	92	GLU
11	AK	95	ILE
11	AK	105	ARG
12	AL	25	SER
12	AL	57	LEU
12	AL	59	ARG
12	AL	82	LEU
12	AL	121	THR
12	AL	127	VAL
13	AM	7	THR
13	AM	10	ARG
13	AM	12	MET
13	AM	13	HIS
13	AM	24	THR
13	AM	33	LEU
13	AM	46	ILE
13	AM	70	ASP
13	AM	78	LEU
13	AM	81	ARG
13	AM	90	GLU
13	AM	95	LEU
13	AM	96	ILE
13	AM	126	ILE
13	AM	134	THR
14	AN	51	LEU
14	AN	63	ARG
14	AN	69	ARG
14	AN	71	ARG
14	AN	94	TYR
14	AN	118	ARG
15	AO	18	LEU
15	AO	28	VAL
15	AO	36	TYR
15	AO	106	LEU
15	AO	115	LEU
16	AP	16	VAL
16	AP	19	PHE
16	AP	29	VAL
16	AP	31	VAL
16	AP	50	ARG
16	AP	52	ARG
16	AP	62	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	AP	75	THR
16	AP	83	ILE
16	AP	92	ARG
16	AP	95	LYS
16	AP	96	LEU
16	AP	103	THR
16	AP	113	LEU
17	AQ	17	LEU
17	AQ	30	VAL
17	AQ	50	ARG
17	AQ	88	GLU
17	AQ	96	ASP
17	AQ	97	ILE
18	AR	6	GLN
18	AR	38	VAL
18	AR	46	GLU
18	AR	48	LYS
18	AR	55	ASP
19	AS	3	THR
19	AS	4	ILE
19	AS	36	LEU
19	AS	41	LYS
19	AS	45	VAL
19	AS	66	ILE
19	AS	76	VAL
19	AS	96	ILE
20	AT	3	ARG
20	AT	18	GLU
20	AT	32	LEU
20	AT	37	ASP
20	AT	39	THR
20	AT	43	ILE
20	AT	54	GLU
20	AT	67	VAL
20	AT	69	ARG
21	AU	14	THR
21	AU	29	SER
21	AU	86	PHE
21	AU	98	ASN
22	AV	18	ARG
22	AV	31	TYR
22	AV	42	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	AV	61	LEU
22	AV	92	VAL
23	AW	10	ARG
23	AW	15	SER
23	AW	19	ARG
23	AW	24	ARG
23	AW	25	PHE
23	AW	38	ARG
23	AW	49	ASN
23	AW	63	ASP
23	AW	76	ARG
23	AW	79	ILE
24	AX	26	ARG
24	AX	29	LEU
24	AX	46	VAL
24	AX	47	THR
24	AX	65	THR
24	AX	77	TYR
25	AY	16	THR
25	AY	18	LEU
25	AY	21	LEU
25	AY	23	ARG
25	AY	37	LEU
25	AY	59	GLU
26	AZ	8	GLN
26	AZ	23	LEU
26	AZ	37	ARG
26	AZ	40	THR
28	A1	16	THR
28	A1	35	LEU
28	A1	41	VAL
29	A2	42	LEU
30	A3	5	THR
30	A3	30	HIS
31	A4	2	LYS
31	A4	3	VAL
32	A5	1	MET
32	A5	26	VAL
32	A5	42	ARG
32	A5	43	LYS
32	A5	51	TYR
32	A5	59	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	A5	65	GLU
32	A5	69	PHE
32	A5	96	PHE
32	A5	106	PHE
32	A5	107	GLU
32	A5	116	GLU
32	A5	121	SER
32	A5	125	ARG
32	A5	130	PRO
32	A5	132	TYR
32	A5	143	MET
34	BB	37	VAL
34	BB	49	PHE
34	BB	53	LEU
34	BB	63	LYS
34	BB	71	THR
34	BB	94	ARG
34	BB	186	VAL
34	BB	212	TYR
34	BB	219	THR
35	BC	3	GLN
35	BC	18	TRP
35	BC	166	GLU
36	BD	26	ARG
36	BD	32	CYS
36	BD	58	LYS
36	BD	93	LEU
36	BD	104	ARG
36	BD	136	GLN
36	BD	161	LEU
36	BD	171	LEU
36	BD	195	ILE
37	BE	60	ILE
37	BE	95	PHE
37	BE	114	VAL
37	BE	115	LEU
37	BE	148	ASN
37	BE	153	VAL
38	BF	7	VAL
38	BF	51	ILE
38	BF	55	HIS
38	BF	63	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BG	5	ARG
39	BG	7	ILE
40	BH	55	THR
40	BH	67	GLN
40	BH	83	LEU
40	BH	99	LEU
40	BH	104	VAL
40	BH	121	LEU
41	BI	30	ILE
41	BI	38	TYR
41	BI	43	THR
41	BI	48	VAL
41	BI	57	MET
41	BI	63	LEU
41	BI	88	MET
41	BI	116	VAL
41	BI	123	ARG
42	BJ	59	LYS
43	BK	82	LEU
43	BK	107	ILE
43	BK	125	LYS
44	BL	29	GLN
44	BL	90	LEU
44	BL	102	LEU
45	BM	19	LEU
45	BM	53	ILE
45	BM	87	ARG
47	BO	5	THR
47	BO	64	ARG
47	BO	79	THR
47	BO	87	LEU
48	BP	6	LEU
48	BP	31	ARG
49	BQ	4	LYS
49	BQ	22	VAL
49	BQ	28	PHE
49	BQ	48	ASP
51	BS	36	ARG
52	BT	5	LYS
52	BT	12	ILE
52	BT	49	LYS
52	BT	54	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	BT	69	LYS
53	BU	34	ARG
53	BU	38	TYR
54	BV	5	THR
54	BV	19	ILE
54	BV	23	LYS
54	BV	29	ARG
54	BV	57	GLN
54	BV	77	LYS
54	BV	83	ARG
54	BV	95	PHE
54	BV	96	THR
54	BV	101	ARG
54	BV	103	MET
54	BV	104	ARG
54	BV	106	LEU
54	BV	160	THR
54	BV	182	VAL
54	BV	200	VAL
54	BV	202	PHE
54	BV	204	TYR
54	BV	220	GLN
54	BV	232	GLU
54	BV	254	GLN
54	BV	266	CYS
54	BV	286	LEU
54	BV	291	ASP
54	BV	303	LYS
54	BV	320	LEU
54	BV	370	LYS
54	BV	409	MET
54	BV	418	ILE
54	BV	431	MET
54	BV	446	ARG
54	BV	480	GLU
54	BV	482	ASN
54	BV	487	GLN
54	BV	488	VAL
54	BV	494	ILE
54	BV	504	LYS
54	BV	508	GLN
54	BV	514	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	BV	522	MET
54	BV	532	LYS
54	BV	558	GLN
54	BV	594	LYS
54	BV	602	LYS
54	BV	612	LEU
54	BV	618	LYS
54	BV	646	GLU
54	BV	660	LEU
54	BV	675	LYS
54	BV	677	ARG
54	BV	681	THR
54	BV	683	GLU
54	BV	685	LEU
54	BV	699	ILE
55	BW	4	SER
3	CC	63	ILE
3	CC	79	ARG
3	CC	93	VAL
3	CC	100	ARG
3	CC	104	LEU
3	CC	109	LEU
3	CC	120	ASP
3	CC	173	LEU
3	CC	176	ARG
3	CC	191	LEU
3	CC	194	VAL
3	CC	202	ARG
3	CC	212	TRP
3	CC	251	THR
3	CC	270	ARG
4	CD	89	GLU
4	CD	91	THR
4	CD	107	VAL
4	CD	124	ARG
4	CD	183	GLU
4	CD	186	LEU
4	CD	201	LEU
4	CD	203	VAL
5	CE	28	VAL
5	CE	40	ARG
5	CE	78	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	CE	109	LEU
5	CE	119	ILE
5	CE	149	ILE
5	CE	164	LEU
6	CF	14	LYS
6	CF	18	GLU
6	CF	35	LEU
6	CF	41	GLU
6	CF	104	THR
6	CF	114	ARG
6	CF	154	THR
6	CF	157	THR
6	CF	162	ASP
7	CG	18	ILE
7	CG	68	ARG
7	CG	78	VAL
7	CG	84	LYS
7	CG	86	LEU
7	CG	91	VAL
7	CG	126	THR
7	CG	132	LEU
7	CG	151	ARG
7	CG	163	TYR
7	CG	166	GLU
8	CH	3	VAL
9	CI	71	LYS
10	CJ	2	LYS
10	CJ	25	LEU
10	CJ	30	THR
10	CJ	36	LEU
10	CJ	40	HIS
10	CJ	41	LYS
10	CJ	54	ILE
10	CJ	55	ILE
10	CJ	72	LYS
10	CJ	95	ARG
10	CJ	105	VAL
10	CJ	124	VAL
10	CJ	135	GLN
10	CJ	140	LEU
11	CK	13	ASN
11	CK	20	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	CK	23	LYS
11	CK	47	ILE
11	CK	73	ASP
11	CK	92	GLU
11	CK	95	ILE
11	CK	97	THR
11	CK	105	ARG
12	CL	25	SER
12	CL	46	VAL
12	CL	50	PHE
12	CL	61	LEU
12	CL	82	LEU
12	CL	118	THR
13	CM	2	LEU
13	CM	33	LEU
13	CM	58	LYS
13	CM	70	ASP
13	CM	78	LEU
13	CM	81	ARG
13	CM	90	GLU
13	CM	95	LEU
13	CM	97	GLN
13	CM	102	LEU
13	CM	126	ILE
13	CM	132	THR
13	CM	134	THR
14	CN	29	VAL
14	CN	30	ARG
14	CN	31	HIS
14	CN	45	ARG
14	CN	69	ARG
14	CN	70	THR
14	CN	71	ARG
15	CO	31	THR
15	CO	36	TYR
15	CO	39	VAL
15	CO	78	VAL
15	CO	94	ARG
15	CO	106	LEU
16	CP	16	VAL
16	CP	31	VAL
16	CP	50	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	CP	52	ARG
16	CP	75	THR
16	CP	83	ILE
16	CP	92	ARG
16	CP	96	LEU
16	CP	99	LEU
16	CP	103	THR
16	CP	113	LEU
17	CQ	29	ARG
17	CQ	50	ARG
17	CQ	59	LEU
17	CQ	63	ARG
17	CQ	94	LEU
17	CQ	96	ASP
17	CQ	97	ILE
18	CR	4	VAL
18	CR	6	GLN
18	CR	25	LEU
18	CR	38	VAL
18	CR	48	LYS
18	CR	53	PHE
19	CS	3	THR
19	CS	45	VAL
19	CS	66	ILE
19	CS	68	ASP
19	CS	76	VAL
19	CS	88	ARG
19	CS	96	ILE
20	CT	37	ASP
20	CT	43	ILE
20	CT	93	LEU
21	CU	64	ILE
21	CU	86	PHE
21	CU	92	VAL
22	CV	18	ARG
22	CV	20	LEU
22	CV	24	ASN
23	CW	15	SER
23	CW	19	ARG
23	CW	25	PHE
23	CW	49	ASN
23	CW	54	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	CW	63	ASP
23	CW	76	ARG
23	CW	77	LYS
24	CX	6	VAL
24	CX	26	ARG
24	CX	27	ARG
24	CX	29	LEU
24	CX	34	SER
24	CX	65	THR
24	CX	77	TYR
25	CY	16	THR
25	CY	37	LEU
26	CZ	15	ARG
26	CZ	23	LEU
26	CZ	37	ARG
26	CZ	51	SER
26	CZ	58	GLU
27	C0	27	LEU
27	C0	53	VAL
28	C1	8	ILE
28	C1	24	LYS
28	C1	35	LEU
28	C1	47	ILE
29	C2	4	THR
29	C2	8	SER
29	C2	42	LEU
30	C3	5	THR
31	C4	3	VAL
31	C4	23	ILE
34	DB	19	THR
34	DB	22	TRP
34	DB	49	PHE
34	DB	53	LEU
34	DB	94	ARG
34	DB	129	THR
34	DB	143	LEU
34	DB	174	GLU
34	DB	212	TYR
35	DC	3	GLN
35	DC	149	ILE
35	DC	153	VAL
35	DC	167	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	DD	29	ASP
36	DD	31	LYS
36	DD	32	CYS
36	DD	48	LEU
36	DD	101	VAL
36	DD	104	ARG
36	DD	161	LEU
36	DD	171	LEU
36	DD	195	ILE
36	DD	206	LYS
37	DE	70	ASN
37	DE	115	LEU
37	DE	153	VAL
38	DF	55	HIS
38	DF	72	ASP
39	DG	5	ARG
39	DG	22	LEU
39	DG	126	ASP
40	DH	77	ARG
40	DH	80	ARG
40	DH	83	LEU
40	DH	90	ASP
40	DH	99	LEU
40	DH	121	LEU
40	DH	125	ILE
41	DI	48	VAL
41	DI	63	LEU
41	DI	88	MET
42	DJ	36	VAL
42	DJ	45	ARG
42	DJ	50	THR
42	DJ	57	VAL
42	DJ	80	THR
42	DJ	102	LEU
43	DK	82	LEU
43	DK	128	ARG
44	DL	29	GLN
44	DL	40	THR
46	DN	71	HIS
47	DO	64	ARG
47	DO	87	LEU
48	DP	31	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	DP	32	PHE
48	DP	46	LYS
48	DP	71	VAL
48	DP	75	ILE
49	DQ	28	PHE
49	DQ	48	ASP
51	DS	13	LEU
51	DS	61	PHE
51	DS	64	ASP
52	DT	5	LYS
52	DT	8	LYS
52	DT	12	ILE
52	DT	49	LYS
52	DT	54	MET
52	DT	69	LYS
52	DT	70	ASN
53	DU	20	LYS
53	DU	34	ARG
53	DU	40	LYS
54	DV	5	THR
54	DV	19	ILE
54	DV	23	LYS
54	DV	29	ARG
54	DV	77	LYS
54	DV	83	ARG
54	DV	95	PHE
54	DV	96	THR
54	DV	103	MET
54	DV	104	ARG
54	DV	106	LEU
54	DV	116	VAL
54	DV	135	VAL
54	DV	160	THR
54	DV	182	VAL
54	DV	200	VAL
54	DV	202	PHE
54	DV	204	TYR
54	DV	220	GLN
54	DV	232	GLU
54	DV	254	GLN
54	DV	259	ASN
54	DV	266	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	DV	286	LEU
54	DV	303	LYS
54	DV	370	LYS
54	DV	409	MET
54	DV	431	MET
54	DV	446	ARG
54	DV	480	GLU
54	DV	487	GLN
54	DV	488	VAL
54	DV	494	ILE
54	DV	504	LYS
54	DV	522	MET
54	DV	532	LYS
54	DV	594	LYS
54	DV	602	LYS
54	DV	618	LYS
54	DV	646	GLU
54	DV	660	LEU
54	DV	663	MET
54	DV	675	LYS
54	DV	677	ARG
54	DV	681	THR
54	DV	683	GLU
54	DV	685	LEU
54	DV	686	LYS
54	DV	699	ILE
55	DW	4	SER
3	EC	8	THR
3	EC	62	ARG
3	EC	93	VAL
3	EC	100	ARG
3	EC	109	LEU
3	EC	120	ASP
3	EC	123	ILE
3	EC	155	ARG
3	EC	175	LEU
3	EC	176	ARG
3	EC	191	LEU
3	EC	196	ASN
3	EC	204	LEU
3	EC	212	TRP
3	EC	251	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EC	252	LYS
4	ED	9	VAL
4	ED	32	ASN
4	ED	91	THR
4	ED	124	ARG
4	ED	151	THR
4	ED	171	THR
4	ED	172	VAL
4	ED	183	GLU
4	ED	203	VAL
5	EE	18	THR
5	EE	44	ARG
5	EE	70	SER
5	EE	77	ILE
5	EE	91	ASP
5	EE	113	VAL
5	EE	119	ILE
5	EE	147	LEU
5	EE	149	ILE
5	EE	164	LEU
5	EE	176	ASP
5	EE	178	VAL
6	EF	18	GLU
6	EF	35	LEU
6	EF	41	GLU
6	EF	66	ILE
6	EF	80	GLN
6	EF	111	ARG
6	EF	114	ARG
6	EF	153	ILE
6	EF	154	THR
6	EF	168	LEU
7	EG	18	ILE
7	EG	28	LYS
7	EG	59	ASP
7	EG	76	ILE
7	EG	79	THR
7	EG	84	LYS
7	EG	86	LEU
7	EG	131	VAL
7	EG	132	LEU
7	EG	151	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	EG	163	TYR
7	EG	165	ASP
8	EH	3	VAL
8	EH	7	ASP
8	EH	15	LEU
8	EH	48	GLU
9	EI	135	MET
10	EJ	2	LYS
10	EJ	3	THR
10	EJ	17	VAL
10	EJ	24	THR
10	EJ	30	THR
10	EJ	34	ARG
10	EJ	36	LEU
10	EJ	40	HIS
10	EJ	44	TYR
10	EJ	54	ILE
10	EJ	55	ILE
10	EJ	65	THR
10	EJ	69	ARG
10	EJ	81	ILE
10	EJ	95	ARG
10	EJ	103	ILE
10	EJ	114	LEU
10	EJ	135	GLN
10	EJ	139	VAL
10	EJ	140	LEU
11	EK	10	VAL
11	EK	23	LYS
11	EK	41	ILE
11	EK	51	LYS
11	EK	73	ASP
11	EK	92	GLU
11	EK	95	ILE
11	EK	105	ARG
12	EL	5	THR
12	EL	30	THR
12	EL	40	SER
12	EL	51	GLU
12	EL	61	LEU
13	EM	6	ARG
13	EM	70	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	EM	80	VAL
13	EM	81	ARG
13	EM	93	VAL
13	EM	96	ILE
13	EM	126	ILE
13	EM	132	THR
13	EM	134	THR
14	EN	69	ARG
14	EN	75	ILE
15	EO	31	THR
15	EO	36	TYR
15	EO	78	VAL
15	EO	94	ARG
15	EO	98	GLN
15	EO	102	ARG
15	EO	106	LEU
16	EP	5	LYS
16	EP	19	PHE
16	EP	65	ASN
16	EP	79	VAL
16	EP	80	VAL
16	EP	92	ARG
16	EP	96	LEU
16	EP	99	LEU
17	EQ	7	VAL
17	EQ	29	ARG
17	EQ	40	LYS
17	EQ	50	ARG
17	EQ	89	ILE
17	EQ	93	ILE
17	EQ	94	LEU
17	EQ	96	ASP
17	EQ	97	ILE
18	ER	4	VAL
18	ER	25	LEU
18	ER	38	VAL
18	ER	46	GLU
18	ER	48	LYS
18	ER	81	LYS
18	ER	98	ILE
19	ES	3	THR
19	ES	4	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	ES	33	LEU
19	ES	36	LEU
19	ES	45	VAL
19	ES	46	LEU
19	ES	66	ILE
19	ES	68	ASP
19	ES	76	VAL
20	ET	12	ARG
20	ET	32	LEU
20	ET	37	ASP
20	ET	43	ILE
20	ET	54	GLU
20	ET	64	LYS
20	ET	68	LYS
21	EU	29	SER
21	EU	43	LYS
21	EU	64	ILE
21	EU	67	SER
21	EU	71	ILE
21	EU	86	PHE
21	EU	90	LYS
22	EV	24	ASN
22	EV	65	VAL
23	EW	19	ARG
23	EW	24	ARG
23	EW	25	PHE
23	EW	49	ASN
23	EW	63	ASP
23	EW	70	VAL
23	EW	76	ARG
24	EX	6	VAL
24	EX	17	ARG
24	EX	26	ARG
24	EX	65	THR
24	EX	69	GLU
24	EX	70	LEU
24	EX	77	TYR
25	EY	16	THR
25	EY	18	LEU
25	EY	23	ARG
25	EY	37	LEU
25	EY	47	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	EY	56	LEU
26	EZ	37	ARG
26	EZ	40	THR
26	EZ	51	SER
26	EZ	56	VAL
27	E0	27	LEU
27	E0	53	VAL
28	E1	7	LYS
28	E1	35	LEU
29	E2	1	MET
29	E2	4	THR
29	E2	8	SER
29	E2	24	THR
29	E2	42	LEU
30	E3	7	ARG
30	E3	30	HIS
30	E3	49	VAL
30	E3	54	LEU
31	E4	3	VAL
31	E4	26	ILE
32	E5	1	MET
32	E5	26	VAL
32	E5	42	ARG
32	E5	51	TYR
32	E5	59	LEU
32	E5	65	GLU
32	E5	69	PHE
32	E5	96	PHE
32	E5	106	PHE
32	E5	107	GLU
32	E5	116	GLU
32	E5	121	SER
32	E5	125	ARG
32	E5	143	MET
34	FB	19	THR
34	FB	20	ARG
34	FB	49	PHE
34	FB	58	LYS
34	FB	67	LEU
34	FB	94	ARG
34	FB	129	THR
34	FB	143	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FC	3	GLN
35	FC	12	LEU
35	FC	14	ILE
35	FC	29	PHE
35	FC	36	ASP
35	FC	41	GLN
35	FC	89	LYS
35	FC	121	THR
35	FC	125	GLU
35	FC	128	VAL
35	FC	175	LEU
35	FC	200	VAL
36	FD	31	LYS
36	FD	32	CYS
36	FD	48	LEU
36	FD	55	LEU
36	FD	56	ARG
36	FD	101	VAL
36	FD	104	ARG
36	FD	132	ILE
36	FD	161	LEU
36	FD	195	ILE
37	FE	15	LEU
37	FE	54	ARG
37	FE	81	LEU
37	FE	115	LEU
37	FE	120	VAL
37	FE	126	LYS
37	FE	131	THR
37	FE	148	ASN
37	FE	153	VAL
38	FF	55	HIS
38	FF	78	PHE
38	FF	97	THR
39	FG	22	LEU
39	FG	97	ASN
39	FG	126	ASP
39	FG	130	ASN
40	FH	66	PHE
40	FH	83	LEU
40	FH	90	ASP
40	FH	99	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	FH	104	VAL
40	FH	121	LEU
40	FH	125	ILE
41	FI	14	SER
41	FI	30	ILE
41	FI	63	LEU
41	FI	84	THR
41	FI	88	MET
41	FI	89	GLU
41	FI	123	ARG
42	FJ	50	THR
42	FJ	87	LEU
43	FK	34	ILE
43	FK	79	ILE
43	FK	82	LEU
43	FK	107	ILE
43	FK	125	LYS
44	FL	29	GLN
44	FL	33	VAL
44	FL	43	LYS
44	FL	58	THR
44	FL	64	THR
44	FL	90	LEU
46	FN	28	LYS
46	FN	48	LEU
46	FN	49	GLN
46	FN	53	ARG
47	FO	64	ARG
47	FO	87	LEU
48	FP	55	ASP
49	FQ	28	PHE
50	FR	21	ILE
50	FR	28	THR
51	FS	6	LYS
51	FS	13	LEU
51	FS	49	ILE
51	FS	56	GLN
51	FS	58	VAL
51	FS	64	ASP
52	FT	12	ILE
52	FT	28	MET
52	FT	54	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	FT	69	LYS
52	FT	82	GLN
53	FU	19	PHE
53	FU	20	LYS
53	FU	34	ARG
54	FV	5	THR
54	FV	19	ILE
54	FV	23	LYS
54	FV	29	ARG
54	FV	77	LYS
54	FV	83	ARG
54	FV	95	PHE
54	FV	96	THR
54	FV	101	ARG
54	FV	104	ARG
54	FV	106	LEU
54	FV	182	VAL
54	FV	200	VAL
54	FV	202	PHE
54	FV	204	TYR
54	FV	218	TRP
54	FV	221	ASN
54	FV	232	GLU
54	FV	254	GLN
54	FV	266	CYS
54	FV	286	LEU
54	FV	303	LYS
54	FV	340	SER
54	FV	370	LYS
54	FV	374	ILE
54	FV	409	MET
54	FV	431	MET
54	FV	446	ARG
54	FV	478	ASN
54	FV	487	GLN
54	FV	488	VAL
54	FV	494	ILE
54	FV	504	LYS
54	FV	514	GLN
54	FV	532	LYS
54	FV	594	LYS
54	FV	602	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	FV	612	LEU
54	FV	618	LYS
54	FV	635	LEU
54	FV	646	GLU
54	FV	660	LEU
54	FV	663	MET
54	FV	675	LYS
54	FV	677	ARG
54	FV	681	THR
54	FV	683	GLU
54	FV	685	LEU
54	FV	699	ILE
3	GC	27	LYS
3	GC	35	LYS
3	GC	62	ARG
3	GC	93	VAL
3	GC	104	LEU
3	GC	109	LEU
3	GC	129	LEU
3	GC	172	THR
3	GC	173	LEU
3	GC	175	LEU
3	GC	194	VAL
3	GC	201	LEU
3	GC	202	ARG
3	GC	212	TRP
3	GC	215	VAL
3	GC	235	GLU
3	GC	251	THR
3	GC	256	THR
4	GD	14	ILE
4	GD	29	VAL
4	GD	35	THR
4	GD	124	ARG
4	GD	129	THR
4	GD	159	LYS
4	GD	183	GLU
4	GD	203	VAL
5	GE	40	ARG
5	GE	77	ILE
5	GE	78	TRP
5	GE	118	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	GE	176	ASP
6	GF	3	LEU
6	GF	114	ARG
6	GF	137	PHE
6	GF	174	PHE
7	GG	68	ARG
7	GG	84	LYS
7	GG	86	LEU
7	GG	132	LEU
7	GG	151	ARG
7	GG	157	LYS
7	GG	163	TYR
8	GH	3	VAL
8	GH	5	LEU
8	GH	37	VAL
8	GH	48	GLU
9	GI	102	ARG
10	GJ	3	THR
10	GJ	24	THR
10	GJ	30	THR
10	GJ	36	LEU
10	GJ	40	HIS
10	GJ	54	ILE
10	GJ	55	ILE
10	GJ	69	ARG
10	GJ	72	LYS
10	GJ	95	ARG
10	GJ	131	ASN
10	GJ	135	GLN
10	GJ	140	LEU
11	GK	3	GLN
11	GK	47	ILE
11	GK	58	LEU
11	GK	73	ASP
11	GK	98	ARG
11	GK	105	ARG
11	GK	111	LYS
12	GL	6	LEU
12	GL	19	LEU
12	GL	30	THR
12	GL	46	VAL
12	GL	61	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	GL	66	PHE
12	GL	67	THR
12	GL	118	THR
13	GM	70	ASP
13	GM	81	ARG
13	GM	96	ILE
13	GM	97	GLN
13	GM	102	LEU
13	GM	126	ILE
13	GM	134	THR
14	GN	14	SER
14	GN	31	HIS
14	GN	33	ILE
14	GN	69	ARG
15	GO	31	THR
15	GO	36	TYR
15	GO	106	LEU
16	GP	7	LEU
16	GP	20	ARG
16	GP	25	VAL
16	GP	36	LYS
16	GP	38	ARG
16	GP	39	LEU
16	GP	50	ARG
16	GP	69	VAL
16	GP	92	ARG
16	GP	99	LEU
16	GP	113	LEU
17	GQ	50	ARG
17	GQ	56	PHE
17	GQ	96	ASP
18	GR	25	LEU
18	GR	38	VAL
18	GR	46	GLU
18	GR	48	LYS
19	GS	4	ILE
19	GS	7	HIS
19	GS	45	VAL
19	GS	68	ASP
19	GS	75	PHE
19	GS	88	ARG
19	GS	96	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	GT	12	ARG
20	GT	32	LEU
20	GT	37	ASP
20	GT	43	ILE
21	GU	8	ASP
21	GU	73	ASN
21	GU	86	PHE
22	GV	5	ASN
22	GV	20	LEU
22	GV	42	LEU
23	GW	19	ARG
23	GW	25	PHE
23	GW	49	ASN
23	GW	63	ASP
23	GW	70	VAL
23	GW	76	ARG
24	GX	6	VAL
24	GX	10	ARG
24	GX	26	ARG
24	GX	34	SER
24	GX	60	LYS
24	GX	77	TYR
25	GY	14	LEU
25	GY	16	THR
25	GY	37	LEU
25	GY	56	LEU
26	GZ	2	LYS
26	GZ	8	GLN
26	GZ	15	ARG
26	GZ	37	ARG
26	GZ	40	THR
28	G1	35	LEU
29	G2	4	THR
29	G2	8	SER
29	G2	24	THR
29	G2	42	LEU
30	G3	7	ARG
30	G3	29	ARG
30	G3	30	HIS
30	G3	54	LEU
31	G4	1	MET
31	G4	3	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	G4	26	ILE
34	HB	49	PHE
34	HB	56	LEU
34	HB	63	LYS
34	HB	94	ARG
34	HB	124	THR
34	HB	143	LEU
34	HB	174	GLU
34	HB	186	VAL
34	HB	206	ILE
34	HB	207	ARG
35	HC	3	GLN
35	HC	14	ILE
35	HC	29	PHE
35	HC	121	THR
35	HC	144	LEU
35	HC	153	VAL
36	HD	32	CYS
36	HD	33	LYS
36	HD	48	LEU
36	HD	73	ARG
36	HD	93	LEU
36	HD	101	VAL
36	HD	146	ARG
36	HD	161	LEU
36	HD	198	HIS
37	HE	70	ASN
37	HE	72	ILE
37	HE	114	VAL
37	HE	115	LEU
37	HE	136	VAL
37	HE	148	ASN
37	HE	153	VAL
38	HF	7	VAL
38	HF	55	HIS
39	HG	22	LEU
40	HH	67	GLN
40	HH	77	ARG
40	HH	90	ASP
40	HH	94	LYS
40	HH	99	LEU
40	HH	121	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	HI	14	SER
41	HI	38	TYR
41	HI	46	MET
41	HI	57	MET
41	HI	63	LEU
41	HI	88	MET
42	HJ	57	VAL
42	HJ	92	LEU
42	HJ	102	LEU
43	HK	31	ILE
43	HK	57	LYS
43	HK	70	CYS
43	HK	74	VAL
43	HK	82	LEU
43	HK	96	THR
43	HK	97	ILE
43	HK	125	LYS
44	HL	7	LEU
44	HL	14	ARG
44	HL	20	ASN
44	HL	29	GLN
44	HL	33	VAL
44	HL	59	ASN
44	HL	78	SER
44	HL	90	LEU
44	HL	102	LEU
46	HN	31	ILE
46	HN	85	ARG
47	HO	64	ARG
47	HO	87	LEU
48	HP	1	MET
48	HP	6	LEU
49	HQ	28	PHE
49	HQ	33	ILE
49	HQ	38	ILE
49	HQ	55	ILE
49	HQ	61	ILE
51	HS	13	LEU
51	HS	23	VAL
51	HS	64	ASP
52	HT	12	ILE
52	HT	49	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	HT	51	PHE
52	HT	54	MET
52	HT	69	LYS
53	HU	20	LYS
53	HU	34	ARG
54	HV	5	THR
54	HV	19	ILE
54	HV	23	LYS
54	HV	29	ARG
54	HV	77	LYS
54	HV	83	ARG
54	HV	95	PHE
54	HV	96	THR
54	HV	101	ARG
54	HV	104	ARG
54	HV	106	LEU
54	HV	160	THR
54	HV	182	VAL
54	HV	200	VAL
54	HV	202	PHE
54	HV	204	TYR
54	HV	220	GLN
54	HV	232	GLU
54	HV	254	GLN
54	HV	266	CYS
54	HV	286	LEU
54	HV	303	LYS
54	HV	336	PHE
54	HV	370	LYS
54	HV	409	MET
54	HV	418	ILE
54	HV	431	MET
54	HV	446	ARG
54	HV	482	ASN
54	HV	487	GLN
54	HV	488	VAL
54	HV	494	ILE
54	HV	504	LYS
54	HV	508	GLN
54	HV	512	ARG
54	HV	515	TYR
54	HV	522	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	HV	532	LYS
54	HV	555	LYS
54	HV	578	LEU
54	HV	594	LYS
54	HV	602	LYS
54	HV	618	LYS
54	HV	646	GLU
54	HV	660	LEU
54	HV	675	LYS
54	HV	677	ARG
54	HV	681	THR
54	HV	685	LEU
54	HV	699	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (87) such sidechains are listed below:

Mol	Chain	Res	Type
3	AC	141	HIS
6	AF	62	GLN
9	AI	93	ASN
15	AO	29	HIS
15	AO	34	HIS
18	AR	66	HIS
21	AU	39	ASN
22	AV	80	HIS
34	BB	88	GLN
40	BH	18	GLN
43	BK	109	ASN
47	BO	46	HIS
50	BR	31	ASN
54	BV	122	GLN
54	BV	178	HIS
54	BV	276	GLN
54	BV	465	HIS
54	BV	584	HIS
4	CD	49	GLN
5	CE	29	HIS
13	CM	13	HIS
15	CO	34	HIS
18	CR	66	HIS
21	CU	98	ASN
22	CV	80	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	CW	49	ASN
34	DB	57	ASN
37	DE	89	HIS
39	DG	130	ASN
41	DI	81	HIS
43	DK	109	ASN
44	DL	29	GLN
46	DN	35	ASN
47	DO	46	HIS
48	DP	18	GLN
54	DV	178	HIS
54	DV	276	GLN
54	DV	465	HIS
54	DV	584	HIS
7	EG	115	GLN
9	EI	33	ASN
15	EO	29	HIS
15	EO	34	HIS
21	EU	98	ASN
22	EV	80	HIS
23	EW	39	GLN
27	E0	18	HIS
34	FB	38	HIS
34	FB	57	ASN
34	FB	88	GLN
36	FD	116	GLN
42	FJ	35	GLN
43	FK	109	ASN
46	FN	35	ASN
51	FS	14	HIS
51	FS	52	HIS
51	FS	56	GLN
54	FV	122	GLN
54	FV	276	GLN
54	FV	310	HIS
54	FV	367	HIS
54	FV	454	ASN
3	GC	24	HIS
3	GC	36	ASN
3	GC	141	HIS
4	GD	32	ASN
13	GM	13	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	GO	34	HIS
18	GR	66	HIS
20	GT	92	ASN
22	GV	80	HIS
34	HB	57	ASN
36	HD	116	GLN
41	HI	81	HIS
41	HI	110	GLN
42	HJ	56	HIS
43	HK	81	ASN
43	HK	109	ASN
44	HL	59	ASN
44	HL	96	HIS
51	HS	52	HIS
51	HS	57	HIS
52	HT	20	HIS
54	HV	55	GLN
54	HV	122	GLN
54	HV	465	HIS
54	HV	579	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2850/2904 (98%)	472 (16%)	48 (1%)
1	CA	2850/2904 (98%)	470 (16%)	50 (1%)
1	EA	2850/2904 (98%)	471 (16%)	45 (1%)
1	GA	2850/2904 (98%)	471 (16%)	51 (1%)
2	AB	117/120 (97%)	17 (14%)	0
2	CB	117/120 (97%)	18 (15%)	1 (0%)
2	EB	117/120 (97%)	17 (14%)	0
2	GB	117/120 (97%)	19 (16%)	0
33	BA	1532/1542 (99%)	272 (17%)	18 (1%)
33	DA	1532/1542 (99%)	269 (17%)	18 (1%)
33	FA	1532/1542 (99%)	265 (17%)	17 (1%)
33	HA	1532/1542 (99%)	273 (17%)	18 (1%)
All	All	17996/18264 (98%)	3034 (16%)	266 (1%)

All (3034) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	10	A
1	AA	12	U
1	AA	15	G
1	AA	34	U
1	AA	35	G
1	AA	42	A
1	AA	43	G
1	AA	45	G
1	AA	46	G
1	AA	61	C
1	AA	71	A
1	AA	74	A
1	AA	75	G
1	AA	80	G
1	AA	82	U
1	AA	84	A
1	AA	96	C
1	AA	98	G
1	AA	101	A
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	131	A
1	AA	135	U
1	AA	136	G
1	AA	137	U
1	AA	138	U
1	AA	139	U
1	AA	140	C
1	AA	141	G
1	AA	142	A
1	AA	143	C
1	AA	144	A
1	AA	149	A
1	AA	158	U
1	AA	159	G
1	AA	162	U
1	AA	163	C
1	AA	164	C
1	AA	166	U
1	AA	174	U
1	AA	181	A
1	AA	188	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	196	A
1	AA	199	A
1	AA	215	G
1	AA	216	A
1	AA	222	A
1	AA	230	G
1	AA	248	G
1	AA	255	A
1	AA	264	C
1	AA	265	A
1	AA	266	G
1	AA	267	C
1	AA	272	A
1	AA	273	G
1	AA	276	U
1	AA	277	G
1	AA	278	A
1	AA	279	A
1	AA	281	C
1	AA	285	G
1	AA	302	C
1	AA	311	A
1	AA	329	G
1	AA	330	A
1	AA	346	A
1	AA	347	A
1	AA	353	C
1	AA	355	U
1	AA	361	G
1	AA	362	A
1	AA	371	A
1	AA	372	G
1	AA	382	A
1	AA	383	C
1	AA	386	G
1	AA	396	G
1	AA	404	A
1	AA	405	U
1	AA	411	G
1	AA	412	A
1	AA	424	G
1	AA	455	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	461	C
1	AA	480	A
1	AA	481	G
1	AA	490	C
1	AA	491	G
1	AA	504	A
1	AA	505	A
1	AA	509	C
1	AA	528	A
1	AA	529	A
1	AA	532	A
1	AA	533	G
1	AA	538	A
1	AA	543	G
1	AA	544	C
1	AA	546	U
1	AA	547	A
1	AA	548	G
1	AA	549	G
1	AA	550	C
1	AA	563	A
1	AA	573	U
1	AA	575	A
1	AA	586	A
1	AA	603	A
1	AA	604	G
1	AA	613	A
1	AA	614	A
1	AA	615	U
1	AA	618	G
1	AA	622	G
1	AA	627	A
1	AA	631	A
1	AA	637	A
1	AA	645	C
1	AA	646	U
1	AA	647	G
1	AA	654	A
1	AA	655	A
1	AA	656	G
1	AA	686	U
1	AA	714	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	715	A
1	AA	717	C
1	AA	722	A
1	AA	730	A
1	AA	738	G
1	AA	747	U
1	AA	775	G
1	AA	776	G
1	AA	782	A
1	AA	784	G
1	AA	785	G
1	AA	789	A
1	AA	805	G
1	AA	812	C
1	AA	819	A
1	AA	827	U
1	AA	828	U
1	AA	845	A
1	AA	846	U
1	AA	847	U
1	AA	859	G
1	AA	876	C
1	AA	877	A
1	AA	883	G
1	AA	884	U
1	AA	896	A
1	AA	897	C
1	AA	910	A
1	AA	914	G
1	AA	915	C
1	AA	932	U
1	AA	941	A
1	AA	946	C
1	AA	959	A
1	AA	961	C
1	AA	974	G
1	AA	983	A
1	AA	985	C
1	AA	995	C
1	AA	996	A
1	AA	1005	C
1	AA	1012	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1013	C
1	AA	1021	A
1	AA	1022	G
1	AA	1023	U
1	AA	1026	G
1	AA	1033	U
1	AA	1045	C
1	AA	1046	A
1	AA	1047	G
1	AA	1051	G
1	AA	1053	C
1	AA	1059	G
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1069	A
1	AA	1070	A
1	AA	1072	C
1	AA	1078	U
1	AA	1080	A
1	AA	1083	U
1	AA	1084	A
1	AA	1088	A
1	AA	1089	A
1	AA	1094	U
1	AA	1097	U
1	AA	1098	A
1	AA	1110	G
1	AA	1111	A
1	AA	1112	G
1	AA	1130	U
1	AA	1132	U
1	AA	1133	A
1	AA	1135	C
1	AA	1136	G
1	AA	1139	G
1	AA	1142	A
1	AA	1169	A
1	AA	1170	C
1	AA	1171	G
1	AA	1175	A
1	AA	1176	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1180	U
1	AA	1181	U
1	AA	1186	G
1	AA	1236	G
1	AA	1238	G
1	AA	1244	A
1	AA	1248	G
1	AA	1250	G
1	AA	1253	A
1	AA	1256	G
1	AA	1266	G
1	AA	1271	G
1	AA	1272	A
1	AA	1273	U
1	AA	1281	G
1	AA	1300	G
1	AA	1301	A
1	AA	1305	C
1	AA	1306	C
1	AA	1317	G
1	AA	1352	U
1	AA	1365	A
1	AA	1368	G
1	AA	1378	A
1	AA	1379	U
1	AA	1383	A
1	AA	1386	C
1	AA	1395	A
1	AA	1397	U
1	AA	1416	G
1	AA	1419	A
1	AA	1420	A
1	AA	1427	A
1	AA	1428	C
1	AA	1434	A
1	AA	1435	G
1	AA	1452	G
1	AA	1459	G
1	AA	1476	U
1	AA	1482	G
1	AA	1493	C
1	AA	1504	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1508	A
1	AA	1510	G
1	AA	1512	C
1	AA	1515	A
1	AA	1524	G
1	AA	1531	C
1	AA	1533	C
1	AA	1535	A
1	AA	1536	C
1	AA	1566	A
1	AA	1569	A
1	AA	1578	U
1	AA	1581	G
1	AA	1583	A
1	AA	1584	U
1	AA	1585	C
1	AA	1607	C
1	AA	1608	A
1	AA	1610	A
1	AA	1616	A
1	AA	1627	G
1	AA	1647	U
1	AA	1648	U
1	AA	1649	G
1	AA	1652	A
1	AA	1674	G
1	AA	1714	U
1	AA	1715	G
1	AA	1723	G
1	AA	1729	U
1	AA	1730	C
1	AA	1732	C
1	AA	1737	G
1	AA	1738	G
1	AA	1739	A
1	AA	1744	A
1	AA	1758	U
1	AA	1764	C
1	AA	1773	A
1	AA	1782	U
1	AA	1791	A
1	AA	1800	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1801	A
1	AA	1802	A
1	AA	1808	A
1	AA	1811	G
1	AA	1816	C
1	AA	1829	A
1	AA	1833	C
1	AA	1847	A
1	AA	1848	A
1	AA	1858	A
1	AA	1866	A
1	AA	1869	G
1	AA	1870	C
1	AA	1871	A
1	AA	1872	A
1	AA	1884	G
1	AA	1906	G
1	AA	1913	A
1	AA	1914	C
1	AA	1927	A
1	AA	1929	G
1	AA	1930	G
1	AA	1937	A
1	AA	1938	A
1	AA	1955	U
1	AA	1967	C
1	AA	1970	A
1	AA	1971	U
1	AA	1972	G
1	AA	1991	U
1	AA	1993	U
1	AA	1997	C
1	AA	2017	U
1	AA	2020	A
1	AA	2022	U
1	AA	2023	C
1	AA	2027	G
1	AA	2031	A
1	AA	2033	A
1	AA	2043	C
1	AA	2055	C
1	AA	2056	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	2060	A
1	AA	2061	G
1	AA	2062	A
1	AA	2069	G
1	AA	2072	C
1	AA	2104	C
1	AA	2106	U
1	AA	2107	G
1	AA	2108	A
1	AA	2109	U
1	AA	2110	G
1	AA	2134	A
1	AA	2135	A
1	AA	2137	U
1	AA	2138	G
1	AA	2139	U
1	AA	2140	G
1	AA	2142	A
1	AA	2143	C
1	AA	2144	G
1	AA	2145	C
1	AA	2146	C
1	AA	2147	A
1	AA	2148	G
1	AA	2149	U
1	AA	2150	C
1	AA	2151	U
1	AA	2152	G
1	AA	2153	C
1	AA	2154	A
1	AA	2155	U
1	AA	2156	G
1	AA	2157	G
1	AA	2180	U
1	AA	2182	U
1	AA	2183	A
1	AA	2185	U
1	AA	2186	G
1	AA	2194	U
1	AA	2198	A
1	AA	2199	A
1	AA	2203	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	2204	G
1	AA	2211	A
1	AA	2212	A
1	AA	2214	C
1	AA	2225	A
1	AA	2226	C
1	AA	2238	G
1	AA	2239	G
1	AA	2250	G
1	AA	2268	A
1	AA	2278	A
1	AA	2283	C
1	AA	2284	A
1	AA	2286	G
1	AA	2287	A
1	AA	2288	A
1	AA	2305	U
1	AA	2308	G
1	AA	2311	A
1	AA	2317	A
1	AA	2322	A
1	AA	2325	G
1	AA	2327	A
1	AA	2336	A
1	AA	2347	C
1	AA	2354	C
1	AA	2361	G
1	AA	2383	G
1	AA	2385	C
1	AA	2396	G
1	AA	2402	U
1	AA	2403	C
1	AA	2406	A
1	AA	2423	U
1	AA	2424	C
1	AA	2425	A
1	AA	2426	A
1	AA	2428	G
1	AA	2429	G
1	AA	2430	A
1	AA	2435	A
1	AA	2441	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	2448	A
1	AA	2469	A
1	AA	2476	A
1	AA	2484	G
1	AA	2491	U
1	AA	2498	C
1	AA	2502	G
1	AA	2505	G
1	AA	2506	U
1	AA	2507	C
1	AA	2518	A
1	AA	2529	G
1	AA	2554	U
1	AA	2566	A
1	AA	2567	G
1	AA	2573	C
1	AA	2582	G
1	AA	2585	U
1	AA	2602	A
1	AA	2603	G
1	AA	2609	U
1	AA	2613	U
1	AA	2629	U
1	AA	2663	G
1	AA	2671	G
1	AA	2689	U
1	AA	2690	U
1	AA	2714	G
1	AA	2716	C
1	AA	2733	A
1	AA	2744	G
1	AA	2748	A
1	AA	2757	A
1	AA	2760	C
1	AA	2765	A
1	AA	2769	U
1	AA	2778	A
1	AA	2779	U
1	AA	2791	G
1	AA	2798	U
1	AA	2800	A
1	AA	2801	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	2820	A
1	AA	2821	A
1	AA	2849	U
1	AA	2861	U
1	AA	2867	G
1	AA	2883	A
1	AA	2884	U
1	AA	2885	G
1	AA	2903	U
2	AB	3	C
2	AB	15	A
2	AB	16	G
2	AB	21	G
2	AB	24	G
2	AB	30	C
2	AB	35	C
2	AB	42	C
2	AB	44	G
2	AB	56	G
2	AB	84	G
2	AB	87	U
2	AB	88	C
2	AB	89	U
2	AB	90	C
2	AB	99	A
2	AB	109	A
33	BA	5	U
33	BA	7	A
33	BA	9	G
33	BA	22	G
33	BA	32	A
33	BA	39	G
33	BA	40	C
33	BA	47	C
33	BA	48	C
33	BA	50	A
33	BA	51	A
33	BA	52	C
33	BA	70	U
33	BA	71	A
33	BA	72	A
33	BA	73	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	75	G
33	BA	76	G
33	BA	77	A
33	BA	78	A
33	BA	79	G
33	BA	80	A
33	BA	81	A
33	BA	82	G
33	BA	83	C
33	BA	85	U
33	BA	86	G
33	BA	89	U
33	BA	90	C
33	BA	98	A
33	BA	116	A
33	BA	121	U
33	BA	122	G
33	BA	130	A
33	BA	131	A
33	BA	138	G
33	BA	141	G
33	BA	143	A
33	BA	144	G
33	BA	159	G
33	BA	163	C
33	BA	164	G
33	BA	166	U
33	BA	173	U
33	BA	177	G
33	BA	182	A
33	BA	191	G
33	BA	205	A
33	BA	209	U
33	BA	210	C
33	BA	211	G
33	BA	240	G
33	BA	245	U
33	BA	247	G
33	BA	251	G
33	BA	258	G
33	BA	266	G
33	BA	267	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	273	U
33	BA	285	C
33	BA	289	G
33	BA	321	A
33	BA	328	C
33	BA	329	A
33	BA	332	G
33	BA	344	A
33	BA	345	C
33	BA	346	G
33	BA	347	G
33	BA	352	C
33	BA	354	G
33	BA	367	U
33	BA	372	C
33	BA	373	A
33	BA	384	G
33	BA	392	C
33	BA	406	G
33	BA	408	A
33	BA	411	A
33	BA	412	A
33	BA	413	G
33	BA	421	U
33	BA	423	G
33	BA	424	G
33	BA	429	U
33	BA	430	A
33	BA	435	A
33	BA	452	A
33	BA	455	G
33	BA	457	G
33	BA	458	U
33	BA	459	A
33	BA	461	A
33	BA	462	G
33	BA	463	U
33	BA	466	A
33	BA	467	U
33	BA	468	A
33	BA	479	U
33	BA	481	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	482	A
33	BA	484	G
33	BA	485	U
33	BA	486	U
33	BA	498	A
33	BA	500	G
33	BA	508	U
33	BA	509	A
33	BA	511	C
33	BA	518	C
33	BA	521	G
33	BA	527	G
33	BA	532	A
33	BA	533	A
33	BA	547	A
33	BA	556	C
33	BA	559	A
33	BA	562	U
33	BA	564	C
33	BA	572	A
33	BA	573	A
33	BA	576	C
33	BA	577	G
33	BA	579	A
33	BA	588	G
33	BA	596	A
33	BA	604	G
33	BA	650	G
33	BA	653	U
33	BA	665	A
33	BA	687	A
33	BA	702	A
33	BA	721	G
33	BA	723	U
33	BA	731	G
33	BA	747	A
33	BA	748	G
33	BA	755	G
33	BA	777	A
33	BA	793	U
33	BA	794	A
33	BA	802	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	815	A
33	BA	817	C
33	BA	828	U
33	BA	829	G
33	BA	841	C
33	BA	843	U
33	BA	845	A
33	BA	846	G
33	BA	859	G
33	BA	902	G
33	BA	914	A
33	BA	926	G
33	BA	927	G
33	BA	932	C
33	BA	934	C
33	BA	935	A
33	BA	960	U
33	BA	966	G
33	BA	969	A
33	BA	971	G
33	BA	974	A
33	BA	975	A
33	BA	976	G
33	BA	977	A
33	BA	983	A
33	BA	993	G
33	BA	1003	G
33	BA	1004	A
33	BA	1008	U
33	BA	1018	G
33	BA	1022	A
33	BA	1027	C
33	BA	1029	U
33	BA	1030	U
33	BA	1031	C
33	BA	1032	G
33	BA	1033	G
33	BA	1034	G
33	BA	1037	C
33	BA	1050	G
33	BA	1052	U
33	BA	1054	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	1065	U
33	BA	1066	C
33	BA	1086	U
33	BA	1094	G
33	BA	1095	U
33	BA	1101	A
33	BA	1102	A
33	BA	1104	G
33	BA	1108	G
33	BA	1124	G
33	BA	1125	U
33	BA	1130	A
33	BA	1131	G
33	BA	1132	C
33	BA	1133	G
33	BA	1135	U
33	BA	1137	C
33	BA	1139	G
33	BA	1142	G
33	BA	1159	U
33	BA	1160	G
33	BA	1167	A
33	BA	1168	U
33	BA	1181	G
33	BA	1182	G
33	BA	1183	U
33	BA	1196	A
33	BA	1197	A
33	BA	1202	U
33	BA	1212	U
33	BA	1213	A
33	BA	1226	C
33	BA	1227	A
33	BA	1240	U
33	BA	1249	C
33	BA	1250	A
33	BA	1253	G
33	BA	1256	A
33	BA	1279	G
33	BA	1280	A
33	BA	1286	U
33	BA	1287	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	1293	C
33	BA	1297	G
33	BA	1299	A
33	BA	1302	C
33	BA	1303	C
33	BA	1305	G
33	BA	1316	G
33	BA	1317	C
33	BA	1318	A
33	BA	1322	C
33	BA	1323	G
33	BA	1332	A
33	BA	1336	C
33	BA	1337	G
33	BA	1338	G
33	BA	1346	A
33	BA	1353	G
33	BA	1364	U
33	BA	1371	G
33	BA	1380	U
33	BA	1398	A
33	BA	1406	U
33	BA	1411	C
33	BA	1412	C
33	BA	1419	G
33	BA	1440	U
33	BA	1441	A
33	BA	1446	A
33	BA	1452	C
33	BA	1454	G
33	BA	1469	C
33	BA	1470	U
33	BA	1475	G
33	BA	1476	A
33	BA	1487	G
33	BA	1492	A
33	BA	1493	A
33	BA	1494	G
33	BA	1497	G
33	BA	1503	A
33	BA	1506	U
33	BA	1517	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BA	1519	A
33	BA	1529	G
33	BA	1530	G
33	BA	1534	A
1	CA	10	A
1	CA	12	U
1	CA	15	G
1	CA	34	U
1	CA	35	G
1	CA	42	A
1	CA	43	G
1	CA	45	G
1	CA	46	G
1	CA	61	C
1	CA	71	A
1	CA	74	A
1	CA	75	G
1	CA	80	G
1	CA	82	U
1	CA	84	A
1	CA	96	C
1	CA	98	G
1	CA	101	A
1	CA	118	A
1	CA	119	A
1	CA	120	U
1	CA	131	A
1	CA	135	U
1	CA	136	G
1	CA	137	U
1	CA	138	U
1	CA	139	U
1	CA	140	C
1	CA	141	G
1	CA	142	A
1	CA	143	C
1	CA	144	A
1	CA	149	A
1	CA	158	U
1	CA	159	G
1	CA	162	U
1	CA	163	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	164	C
1	CA	166	U
1	CA	174	U
1	CA	181	A
1	CA	188	G
1	CA	196	A
1	CA	199	A
1	CA	215	G
1	CA	216	A
1	CA	222	A
1	CA	230	G
1	CA	248	G
1	CA	255	A
1	CA	264	C
1	CA	265	A
1	CA	266	G
1	CA	267	C
1	CA	272	A
1	CA	273	G
1	CA	276	U
1	CA	277	G
1	CA	278	A
1	CA	281	C
1	CA	285	G
1	CA	302	C
1	CA	311	A
1	CA	329	G
1	CA	330	A
1	CA	346	A
1	CA	347	A
1	CA	353	C
1	CA	355	U
1	CA	361	G
1	CA	362	A
1	CA	371	A
1	CA	372	G
1	CA	382	A
1	CA	383	C
1	CA	386	G
1	CA	396	G
1	CA	404	A
1	CA	405	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	411	G
1	CA	412	A
1	CA	424	G
1	CA	455	C
1	CA	461	C
1	CA	480	A
1	CA	481	G
1	CA	490	C
1	CA	491	G
1	CA	504	A
1	CA	505	A
1	CA	509	C
1	CA	528	A
1	CA	529	A
1	CA	532	A
1	CA	533	G
1	CA	538	A
1	CA	543	G
1	CA	544	C
1	CA	546	U
1	CA	547	A
1	CA	548	G
1	CA	549	G
1	CA	550	C
1	CA	563	A
1	CA	573	U
1	CA	575	A
1	CA	586	A
1	CA	588	U
1	CA	603	A
1	CA	604	G
1	CA	613	A
1	CA	614	A
1	CA	615	U
1	CA	618	G
1	CA	622	G
1	CA	627	A
1	CA	631	A
1	CA	637	A
1	CA	645	C
1	CA	646	U
1	CA	647	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	654	A
1	CA	655	A
1	CA	656	G
1	CA	686	U
1	CA	714	U
1	CA	715	A
1	CA	717	C
1	CA	722	A
1	CA	730	A
1	CA	738	G
1	CA	747	U
1	CA	775	G
1	CA	776	G
1	CA	782	A
1	CA	784	G
1	CA	785	G
1	CA	805	G
1	CA	812	C
1	CA	819	A
1	CA	827	U
1	CA	828	U
1	CA	845	A
1	CA	846	U
1	CA	847	U
1	CA	859	G
1	CA	876	C
1	CA	877	A
1	CA	883	G
1	CA	896	A
1	CA	897	C
1	CA	910	A
1	CA	914	G
1	CA	915	C
1	CA	932	U
1	CA	941	A
1	CA	946	C
1	CA	959	A
1	CA	961	C
1	CA	974	G
1	CA	983	A
1	CA	984	A
1	CA	985	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	995	C
1	CA	996	A
1	CA	1005	C
1	CA	1012	U
1	CA	1013	C
1	CA	1021	A
1	CA	1022	G
1	CA	1023	U
1	CA	1026	G
1	CA	1033	U
1	CA	1045	C
1	CA	1046	A
1	CA	1047	G
1	CA	1053	C
1	CA	1059	G
1	CA	1060	U
1	CA	1061	U
1	CA	1062	G
1	CA	1069	A
1	CA	1070	A
1	CA	1072	C
1	CA	1074	G
1	CA	1078	U
1	CA	1080	A
1	CA	1083	U
1	CA	1084	A
1	CA	1088	A
1	CA	1089	A
1	CA	1094	U
1	CA	1097	U
1	CA	1098	A
1	CA	1110	G
1	CA	1111	A
1	CA	1112	G
1	CA	1130	U
1	CA	1132	U
1	CA	1133	A
1	CA	1135	C
1	CA	1136	G
1	CA	1139	G
1	CA	1142	A
1	CA	1169	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1170	C
1	CA	1171	G
1	CA	1175	A
1	CA	1176	U
1	CA	1180	U
1	CA	1181	U
1	CA	1186	G
1	CA	1236	G
1	CA	1238	G
1	CA	1244	A
1	CA	1248	G
1	CA	1250	G
1	CA	1253	A
1	CA	1256	G
1	CA	1266	G
1	CA	1271	G
1	CA	1272	A
1	CA	1273	U
1	CA	1281	G
1	CA	1300	G
1	CA	1301	A
1	CA	1305	C
1	CA	1306	C
1	CA	1317	G
1	CA	1352	U
1	CA	1365	A
1	CA	1368	G
1	CA	1378	A
1	CA	1379	U
1	CA	1383	A
1	CA	1386	C
1	CA	1395	A
1	CA	1397	U
1	CA	1416	G
1	CA	1419	A
1	CA	1420	A
1	CA	1427	A
1	CA	1428	C
1	CA	1435	G
1	CA	1452	G
1	CA	1459	G
1	CA	1460	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1476	U
1	CA	1482	G
1	CA	1493	C
1	CA	1504	A
1	CA	1508	A
1	CA	1510	G
1	CA	1515	A
1	CA	1524	G
1	CA	1533	C
1	CA	1535	A
1	CA	1536	C
1	CA	1558	C
1	CA	1566	A
1	CA	1569	A
1	CA	1578	U
1	CA	1581	G
1	CA	1583	A
1	CA	1584	U
1	CA	1585	C
1	CA	1607	C
1	CA	1608	A
1	CA	1610	A
1	CA	1627	G
1	CA	1647	U
1	CA	1648	U
1	CA	1649	G
1	CA	1652	A
1	CA	1674	G
1	CA	1714	U
1	CA	1715	G
1	CA	1723	G
1	CA	1729	U
1	CA	1730	C
1	CA	1731	G
1	CA	1732	C
1	CA	1737	G
1	CA	1738	G
1	CA	1739	A
1	CA	1744	A
1	CA	1758	U
1	CA	1764	C
1	CA	1773	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1776	G
1	CA	1782	U
1	CA	1791	A
1	CA	1800	C
1	CA	1801	A
1	CA	1802	A
1	CA	1808	A
1	CA	1811	G
1	CA	1816	C
1	CA	1829	A
1	CA	1833	C
1	CA	1847	A
1	CA	1848	A
1	CA	1858	A
1	CA	1866	A
1	CA	1869	G
1	CA	1870	C
1	CA	1871	A
1	CA	1872	A
1	CA	1884	G
1	CA	1906	G
1	CA	1913	A
1	CA	1914	C
1	CA	1927	A
1	CA	1929	G
1	CA	1930	G
1	CA	1937	A
1	CA	1938	A
1	CA	1955	U
1	CA	1967	C
1	CA	1970	A
1	CA	1971	U
1	CA	1972	G
1	CA	1991	U
1	CA	1993	U
1	CA	1997	C
1	CA	2017	U
1	CA	2020	A
1	CA	2022	U
1	CA	2023	C
1	CA	2027	G
1	CA	2031	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	2033	A
1	CA	2043	C
1	CA	2055	C
1	CA	2056	G
1	CA	2060	A
1	CA	2061	G
1	CA	2062	A
1	CA	2069	G
1	CA	2072	C
1	CA	2104	C
1	CA	2105	U
1	CA	2106	U
1	CA	2108	A
1	CA	2109	U
1	CA	2110	G
1	CA	2134	A
1	CA	2135	A
1	CA	2138	G
1	CA	2139	U
1	CA	2140	G
1	CA	2142	A
1	CA	2143	C
1	CA	2144	G
1	CA	2145	C
1	CA	2147	A
1	CA	2148	G
1	CA	2150	C
1	CA	2151	U
1	CA	2153	C
1	CA	2154	A
1	CA	2155	U
1	CA	2156	G
1	CA	2157	G
1	CA	2180	U
1	CA	2182	U
1	CA	2183	A
1	CA	2185	U
1	CA	2186	G
1	CA	2194	U
1	CA	2198	A
1	CA	2199	A
1	CA	2203	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	2204	G
1	CA	2211	A
1	CA	2212	A
1	CA	2214	C
1	CA	2225	A
1	CA	2226	C
1	CA	2238	G
1	CA	2239	G
1	CA	2250	G
1	CA	2268	A
1	CA	2273	A
1	CA	2278	A
1	CA	2283	C
1	CA	2284	A
1	CA	2286	G
1	CA	2287	A
1	CA	2288	A
1	CA	2305	U
1	CA	2308	G
1	CA	2311	A
1	CA	2322	A
1	CA	2325	G
1	CA	2327	A
1	CA	2335	A
1	CA	2336	A
1	CA	2347	C
1	CA	2354	C
1	CA	2361	G
1	CA	2383	G
1	CA	2385	C
1	CA	2396	G
1	CA	2402	U
1	CA	2403	C
1	CA	2406	A
1	CA	2423	U
1	CA	2424	C
1	CA	2425	A
1	CA	2426	A
1	CA	2428	G
1	CA	2429	G
1	CA	2430	A
1	CA	2435	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	2441	U
1	CA	2448	A
1	CA	2476	A
1	CA	2484	G
1	CA	2491	U
1	CA	2498	C
1	CA	2502	G
1	CA	2505	G
1	CA	2506	U
1	CA	2507	C
1	CA	2518	A
1	CA	2529	G
1	CA	2554	U
1	CA	2556	C
1	CA	2566	A
1	CA	2567	G
1	CA	2573	C
1	CA	2576	G
1	CA	2582	G
1	CA	2585	U
1	CA	2602	A
1	CA	2603	G
1	CA	2609	U
1	CA	2613	U
1	CA	2629	U
1	CA	2663	G
1	CA	2671	G
1	CA	2689	U
1	CA	2690	U
1	CA	2714	G
1	CA	2716	C
1	CA	2733	A
1	CA	2744	G
1	CA	2748	A
1	CA	2757	A
1	CA	2760	C
1	CA	2765	A
1	CA	2769	U
1	CA	2778	A
1	CA	2779	U
1	CA	2791	G
1	CA	2798	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	2799	A
1	CA	2800	A
1	CA	2801	G
1	CA	2820	A
1	CA	2821	A
1	CA	2849	U
1	CA	2861	U
1	CA	2867	G
1	CA	2883	A
1	CA	2884	U
1	CA	2885	G
1	CA	2903	U
2	CB	3	C
2	CB	15	A
2	CB	16	G
2	CB	21	G
2	CB	24	G
2	CB	25	U
2	CB	30	C
2	CB	35	C
2	CB	42	C
2	CB	44	G
2	CB	56	G
2	CB	84	G
2	CB	87	U
2	CB	88	C
2	CB	89	U
2	CB	90	C
2	CB	99	A
2	CB	109	A
33	DA	5	U
33	DA	7	A
33	DA	9	G
33	DA	22	G
33	DA	32	A
33	DA	39	G
33	DA	40	C
33	DA	48	C
33	DA	50	A
33	DA	51	A
33	DA	52	C
33	DA	62	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	63	C
33	DA	64	G
33	DA	70	U
33	DA	71	A
33	DA	72	A
33	DA	73	C
33	DA	75	G
33	DA	76	G
33	DA	77	A
33	DA	78	A
33	DA	80	A
33	DA	81	A
33	DA	82	G
33	DA	83	C
33	DA	84	U
33	DA	85	U
33	DA	86	G
33	DA	90	C
33	DA	98	A
33	DA	116	A
33	DA	121	U
33	DA	122	G
33	DA	130	A
33	DA	131	A
33	DA	141	G
33	DA	143	A
33	DA	144	G
33	DA	159	G
33	DA	163	C
33	DA	164	G
33	DA	166	U
33	DA	173	U
33	DA	177	G
33	DA	182	A
33	DA	191	G
33	DA	205	A
33	DA	209	U
33	DA	210	C
33	DA	211	G
33	DA	240	G
33	DA	245	U
33	DA	247	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	251	G
33	DA	258	G
33	DA	266	G
33	DA	267	C
33	DA	273	U
33	DA	285	C
33	DA	289	G
33	DA	321	A
33	DA	328	C
33	DA	329	A
33	DA	332	G
33	DA	344	A
33	DA	345	C
33	DA	346	G
33	DA	347	G
33	DA	352	C
33	DA	354	G
33	DA	367	U
33	DA	372	C
33	DA	373	A
33	DA	384	G
33	DA	392	C
33	DA	406	G
33	DA	408	A
33	DA	411	A
33	DA	412	A
33	DA	413	G
33	DA	421	U
33	DA	423	G
33	DA	424	G
33	DA	429	U
33	DA	430	A
33	DA	435	A
33	DA	452	A
33	DA	455	G
33	DA	457	G
33	DA	458	U
33	DA	459	A
33	DA	461	A
33	DA	462	G
33	DA	463	U
33	DA	466	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	467	U
33	DA	468	A
33	DA	479	U
33	DA	481	G
33	DA	482	A
33	DA	484	G
33	DA	485	U
33	DA	486	U
33	DA	497	G
33	DA	500	G
33	DA	508	U
33	DA	509	A
33	DA	511	C
33	DA	518	C
33	DA	521	G
33	DA	527	G
33	DA	532	A
33	DA	533	A
33	DA	547	A
33	DA	556	C
33	DA	559	A
33	DA	562	U
33	DA	564	C
33	DA	572	A
33	DA	573	A
33	DA	576	C
33	DA	577	G
33	DA	579	A
33	DA	588	G
33	DA	596	A
33	DA	604	G
33	DA	650	G
33	DA	653	U
33	DA	665	A
33	DA	687	A
33	DA	702	A
33	DA	721	G
33	DA	723	U
33	DA	724	G
33	DA	731	G
33	DA	748	G
33	DA	755	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	777	A
33	DA	793	U
33	DA	794	A
33	DA	802	A
33	DA	815	A
33	DA	817	C
33	DA	828	U
33	DA	829	G
33	DA	841	C
33	DA	843	U
33	DA	845	A
33	DA	846	G
33	DA	859	G
33	DA	902	G
33	DA	914	A
33	DA	926	G
33	DA	927	G
33	DA	932	C
33	DA	934	C
33	DA	935	A
33	DA	960	U
33	DA	966	G
33	DA	969	A
33	DA	971	G
33	DA	974	A
33	DA	975	A
33	DA	976	G
33	DA	977	A
33	DA	983	A
33	DA	993	G
33	DA	1003	G
33	DA	1004	A
33	DA	1008	U
33	DA	1018	G
33	DA	1022	A
33	DA	1027	C
33	DA	1029	U
33	DA	1030	U
33	DA	1031	C
33	DA	1032	G
33	DA	1033	G
33	DA	1034	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	1037	C
33	DA	1050	G
33	DA	1054	C
33	DA	1065	U
33	DA	1066	C
33	DA	1086	U
33	DA	1094	G
33	DA	1095	U
33	DA	1101	A
33	DA	1102	A
33	DA	1104	G
33	DA	1108	G
33	DA	1124	G
33	DA	1125	U
33	DA	1130	A
33	DA	1133	G
33	DA	1135	U
33	DA	1137	C
33	DA	1139	G
33	DA	1142	G
33	DA	1146	A
33	DA	1159	U
33	DA	1160	G
33	DA	1167	A
33	DA	1168	U
33	DA	1181	G
33	DA	1182	G
33	DA	1183	U
33	DA	1196	A
33	DA	1197	A
33	DA	1202	U
33	DA	1212	U
33	DA	1213	A
33	DA	1226	C
33	DA	1227	A
33	DA	1238	A
33	DA	1240	U
33	DA	1249	C
33	DA	1253	G
33	DA	1256	A
33	DA	1279	G
33	DA	1280	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	1286	U
33	DA	1287	A
33	DA	1293	C
33	DA	1299	A
33	DA	1302	C
33	DA	1303	C
33	DA	1305	G
33	DA	1316	G
33	DA	1317	C
33	DA	1318	A
33	DA	1322	C
33	DA	1323	G
33	DA	1332	A
33	DA	1336	C
33	DA	1337	G
33	DA	1338	G
33	DA	1346	A
33	DA	1353	G
33	DA	1364	U
33	DA	1371	G
33	DA	1380	U
33	DA	1398	A
33	DA	1406	U
33	DA	1411	C
33	DA	1412	C
33	DA	1419	G
33	DA	1440	U
33	DA	1441	A
33	DA	1446	A
33	DA	1452	C
33	DA	1454	G
33	DA	1469	C
33	DA	1470	U
33	DA	1475	G
33	DA	1476	A
33	DA	1487	G
33	DA	1492	A
33	DA	1493	A
33	DA	1494	G
33	DA	1497	G
33	DA	1503	A
33	DA	1506	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DA	1517	G
33	DA	1519	A
33	DA	1529	G
33	DA	1530	G
33	DA	1534	A
1	EA	10	A
1	EA	12	U
1	EA	15	G
1	EA	34	U
1	EA	35	G
1	EA	42	A
1	EA	43	G
1	EA	45	G
1	EA	46	G
1	EA	61	C
1	EA	71	A
1	EA	74	A
1	EA	75	G
1	EA	80	G
1	EA	82	U
1	EA	84	A
1	EA	96	C
1	EA	98	G
1	EA	101	A
1	EA	118	A
1	EA	119	A
1	EA	120	U
1	EA	131	A
1	EA	135	U
1	EA	136	G
1	EA	137	U
1	EA	138	U
1	EA	139	U
1	EA	140	C
1	EA	141	G
1	EA	142	A
1	EA	143	C
1	EA	144	A
1	EA	149	A
1	EA	158	U
1	EA	159	G
1	EA	162	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	163	C
1	EA	164	C
1	EA	166	U
1	EA	174	U
1	EA	181	A
1	EA	188	G
1	EA	196	A
1	EA	199	A
1	EA	215	G
1	EA	216	A
1	EA	222	A
1	EA	230	G
1	EA	248	G
1	EA	255	A
1	EA	264	C
1	EA	265	A
1	EA	266	G
1	EA	267	C
1	EA	272	A
1	EA	273	G
1	EA	276	U
1	EA	277	G
1	EA	278	A
1	EA	279	A
1	EA	281	C
1	EA	285	G
1	EA	302	C
1	EA	311	A
1	EA	329	G
1	EA	330	A
1	EA	346	A
1	EA	347	A
1	EA	353	C
1	EA	355	U
1	EA	361	G
1	EA	362	A
1	EA	371	A
1	EA	372	G
1	EA	382	A
1	EA	383	C
1	EA	386	G
1	EA	396	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	404	A
1	EA	405	U
1	EA	411	G
1	EA	412	A
1	EA	424	G
1	EA	455	C
1	EA	461	C
1	EA	480	A
1	EA	481	G
1	EA	490	C
1	EA	491	G
1	EA	504	A
1	EA	505	A
1	EA	509	C
1	EA	528	A
1	EA	529	A
1	EA	532	A
1	EA	533	G
1	EA	538	A
1	EA	543	G
1	EA	544	C
1	EA	546	U
1	EA	547	A
1	EA	548	G
1	EA	549	G
1	EA	550	C
1	EA	563	A
1	EA	573	U
1	EA	575	A
1	EA	586	A
1	EA	588	U
1	EA	603	A
1	EA	604	G
1	EA	613	A
1	EA	614	A
1	EA	615	U
1	EA	618	G
1	EA	622	G
1	EA	627	A
1	EA	631	A
1	EA	637	A
1	EA	645	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	646	U
1	EA	647	G
1	EA	654	A
1	EA	655	A
1	EA	656	G
1	EA	686	U
1	EA	714	U
1	EA	715	A
1	EA	717	C
1	EA	722	A
1	EA	730	A
1	EA	738	G
1	EA	747	U
1	EA	775	G
1	EA	776	G
1	EA	782	A
1	EA	784	G
1	EA	785	G
1	EA	805	G
1	EA	812	C
1	EA	819	A
1	EA	827	U
1	EA	828	U
1	EA	845	A
1	EA	846	U
1	EA	847	U
1	EA	859	G
1	EA	876	C
1	EA	877	A
1	EA	883	G
1	EA	896	A
1	EA	897	C
1	EA	902	C
1	EA	910	A
1	EA	914	G
1	EA	915	C
1	EA	932	U
1	EA	941	A
1	EA	946	C
1	EA	959	A
1	EA	961	C
1	EA	974	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	983	A
1	EA	995	C
1	EA	996	A
1	EA	1012	U
1	EA	1013	C
1	EA	1021	A
1	EA	1022	G
1	EA	1023	U
1	EA	1025	G
1	EA	1026	G
1	EA	1033	U
1	EA	1045	C
1	EA	1046	A
1	EA	1047	G
1	EA	1053	C
1	EA	1059	G
1	EA	1060	U
1	EA	1061	U
1	EA	1062	G
1	EA	1069	A
1	EA	1070	A
1	EA	1072	C
1	EA	1078	U
1	EA	1080	A
1	EA	1083	U
1	EA	1084	A
1	EA	1088	A
1	EA	1089	A
1	EA	1097	U
1	EA	1098	A
1	EA	1110	G
1	EA	1111	A
1	EA	1112	G
1	EA	1130	U
1	EA	1132	U
1	EA	1133	A
1	EA	1135	C
1	EA	1136	G
1	EA	1139	G
1	EA	1142	A
1	EA	1155	A
1	EA	1169	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	1170	C
1	EA	1171	G
1	EA	1174	U
1	EA	1175	A
1	EA	1176	U
1	EA	1177	G
1	EA	1180	U
1	EA	1181	U
1	EA	1186	G
1	EA	1236	G
1	EA	1238	G
1	EA	1244	A
1	EA	1248	G
1	EA	1250	G
1	EA	1253	A
1	EA	1256	G
1	EA	1266	G
1	EA	1271	G
1	EA	1272	A
1	EA	1273	U
1	EA	1281	G
1	EA	1300	G
1	EA	1301	A
1	EA	1305	C
1	EA	1306	C
1	EA	1317	G
1	EA	1352	U
1	EA	1365	A
1	EA	1368	G
1	EA	1378	A
1	EA	1379	U
1	EA	1383	A
1	EA	1386	C
1	EA	1395	A
1	EA	1397	U
1	EA	1416	G
1	EA	1419	A
1	EA	1420	A
1	EA	1427	A
1	EA	1428	C
1	EA	1435	G
1	EA	1452	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	1453	A
1	EA	1459	G
1	EA	1476	U
1	EA	1482	G
1	EA	1493	C
1	EA	1504	A
1	EA	1508	A
1	EA	1509	A
1	EA	1510	G
1	EA	1515	A
1	EA	1524	G
1	EA	1531	C
1	EA	1533	C
1	EA	1535	A
1	EA	1536	C
1	EA	1566	A
1	EA	1569	A
1	EA	1578	U
1	EA	1581	G
1	EA	1583	A
1	EA	1584	U
1	EA	1585	C
1	EA	1607	C
1	EA	1608	A
1	EA	1610	A
1	EA	1627	G
1	EA	1647	U
1	EA	1648	U
1	EA	1649	G
1	EA	1652	A
1	EA	1674	G
1	EA	1714	U
1	EA	1715	G
1	EA	1723	G
1	EA	1729	U
1	EA	1730	C
1	EA	1732	C
1	EA	1733	G
1	EA	1737	G
1	EA	1738	G
1	EA	1739	A
1	EA	1744	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	1758	U
1	EA	1764	C
1	EA	1773	A
1	EA	1776	G
1	EA	1782	U
1	EA	1791	A
1	EA	1800	C
1	EA	1801	A
1	EA	1802	A
1	EA	1808	A
1	EA	1811	G
1	EA	1816	C
1	EA	1829	A
1	EA	1833	C
1	EA	1847	A
1	EA	1848	A
1	EA	1858	A
1	EA	1869	G
1	EA	1870	C
1	EA	1871	A
1	EA	1872	A
1	EA	1884	G
1	EA	1906	G
1	EA	1913	A
1	EA	1914	C
1	EA	1927	A
1	EA	1929	G
1	EA	1930	G
1	EA	1937	A
1	EA	1938	A
1	EA	1955	U
1	EA	1967	C
1	EA	1970	A
1	EA	1971	U
1	EA	1972	G
1	EA	1991	U
1	EA	1993	U
1	EA	1997	C
1	EA	2017	U
1	EA	2020	A
1	EA	2022	U
1	EA	2023	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	2031	A
1	EA	2033	A
1	EA	2043	C
1	EA	2055	C
1	EA	2056	G
1	EA	2060	A
1	EA	2061	G
1	EA	2062	A
1	EA	2069	G
1	EA	2072	C
1	EA	2104	C
1	EA	2105	U
1	EA	2106	U
1	EA	2107	G
1	EA	2108	A
1	EA	2110	G
1	EA	2134	A
1	EA	2137	U
1	EA	2138	G
1	EA	2139	U
1	EA	2140	G
1	EA	2142	A
1	EA	2143	C
1	EA	2144	G
1	EA	2145	C
1	EA	2146	C
1	EA	2147	A
1	EA	2148	G
1	EA	2149	U
1	EA	2150	C
1	EA	2151	U
1	EA	2152	G
1	EA	2153	C
1	EA	2154	A
1	EA	2156	G
1	EA	2180	U
1	EA	2181	U
1	EA	2182	U
1	EA	2183	A
1	EA	2185	U
1	EA	2186	G
1	EA	2187	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	2194	U
1	EA	2198	A
1	EA	2199	A
1	EA	2203	U
1	EA	2204	G
1	EA	2211	A
1	EA	2212	A
1	EA	2214	C
1	EA	2225	A
1	EA	2226	C
1	EA	2238	G
1	EA	2239	G
1	EA	2250	G
1	EA	2268	A
1	EA	2273	A
1	EA	2278	A
1	EA	2283	C
1	EA	2284	A
1	EA	2286	G
1	EA	2287	A
1	EA	2305	U
1	EA	2308	G
1	EA	2311	A
1	EA	2317	A
1	EA	2322	A
1	EA	2325	G
1	EA	2327	A
1	EA	2335	A
1	EA	2336	A
1	EA	2347	C
1	EA	2354	C
1	EA	2383	G
1	EA	2385	C
1	EA	2396	G
1	EA	2402	U
1	EA	2403	C
1	EA	2406	A
1	EA	2423	U
1	EA	2424	C
1	EA	2425	A
1	EA	2426	A
1	EA	2428	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	2429	G
1	EA	2430	A
1	EA	2435	A
1	EA	2441	U
1	EA	2448	A
1	EA	2476	A
1	EA	2484	G
1	EA	2491	U
1	EA	2498	C
1	EA	2502	G
1	EA	2505	G
1	EA	2506	U
1	EA	2507	C
1	EA	2518	A
1	EA	2529	G
1	EA	2554	U
1	EA	2556	C
1	EA	2566	A
1	EA	2567	G
1	EA	2573	C
1	EA	2582	G
1	EA	2585	U
1	EA	2602	A
1	EA	2603	G
1	EA	2609	U
1	EA	2613	U
1	EA	2629	U
1	EA	2663	G
1	EA	2671	G
1	EA	2689	U
1	EA	2690	U
1	EA	2714	G
1	EA	2716	C
1	EA	2733	A
1	EA	2744	G
1	EA	2748	A
1	EA	2757	A
1	EA	2760	C
1	EA	2765	A
1	EA	2769	U
1	EA	2778	A
1	EA	2779	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	2791	G
1	EA	2798	U
1	EA	2799	A
1	EA	2800	A
1	EA	2801	G
1	EA	2820	A
1	EA	2821	A
1	EA	2849	U
1	EA	2861	U
1	EA	2867	G
1	EA	2883	A
1	EA	2884	U
1	EA	2885	G
1	EA	2903	U
2	EB	3	C
2	EB	15	A
2	EB	16	G
2	EB	21	G
2	EB	25	U
2	EB	30	C
2	EB	35	C
2	EB	42	C
2	EB	44	G
2	EB	56	G
2	EB	84	G
2	EB	87	U
2	EB	88	C
2	EB	89	U
2	EB	90	C
2	EB	99	A
2	EB	109	A
33	FA	5	U
33	FA	7	A
33	FA	9	G
33	FA	32	A
33	FA	39	G
33	FA	40	C
33	FA	47	C
33	FA	48	C
33	FA	50	A
33	FA	51	A
33	FA	52	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	70	U
33	FA	71	A
33	FA	72	A
33	FA	73	C
33	FA	75	G
33	FA	76	G
33	FA	77	A
33	FA	80	A
33	FA	81	A
33	FA	82	G
33	FA	83	C
33	FA	84	U
33	FA	85	U
33	FA	86	G
33	FA	89	U
33	FA	90	C
33	FA	92	U
33	FA	98	A
33	FA	116	A
33	FA	121	U
33	FA	122	G
33	FA	130	A
33	FA	131	A
33	FA	141	G
33	FA	143	A
33	FA	144	G
33	FA	159	G
33	FA	163	C
33	FA	164	G
33	FA	166	U
33	FA	173	U
33	FA	177	G
33	FA	182	A
33	FA	191	G
33	FA	205	A
33	FA	206	C
33	FA	208	U
33	FA	209	U
33	FA	210	C
33	FA	211	G
33	FA	240	G
33	FA	245	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	247	G
33	FA	251	G
33	FA	258	G
33	FA	266	G
33	FA	267	C
33	FA	273	U
33	FA	285	C
33	FA	289	G
33	FA	321	A
33	FA	328	C
33	FA	329	A
33	FA	332	G
33	FA	344	A
33	FA	345	C
33	FA	346	G
33	FA	347	G
33	FA	352	C
33	FA	354	G
33	FA	367	U
33	FA	372	C
33	FA	373	A
33	FA	384	G
33	FA	392	C
33	FA	406	G
33	FA	408	A
33	FA	411	A
33	FA	412	A
33	FA	413	G
33	FA	421	U
33	FA	423	G
33	FA	424	G
33	FA	429	U
33	FA	430	A
33	FA	435	A
33	FA	452	A
33	FA	455	G
33	FA	457	G
33	FA	458	U
33	FA	459	A
33	FA	461	A
33	FA	462	G
33	FA	463	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	467	U
33	FA	468	A
33	FA	479	U
33	FA	481	G
33	FA	482	A
33	FA	484	G
33	FA	485	U
33	FA	486	U
33	FA	497	G
33	FA	500	G
33	FA	508	U
33	FA	511	C
33	FA	518	C
33	FA	521	G
33	FA	527	G
33	FA	532	A
33	FA	533	A
33	FA	547	A
33	FA	556	C
33	FA	559	A
33	FA	562	U
33	FA	564	C
33	FA	572	A
33	FA	573	A
33	FA	576	C
33	FA	577	G
33	FA	579	A
33	FA	588	G
33	FA	596	A
33	FA	604	G
33	FA	653	U
33	FA	665	A
33	FA	675	A
33	FA	702	A
33	FA	721	G
33	FA	723	U
33	FA	724	G
33	FA	731	G
33	FA	748	G
33	FA	755	G
33	FA	777	A
33	FA	793	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	794	A
33	FA	802	A
33	FA	815	A
33	FA	817	C
33	FA	828	U
33	FA	829	G
33	FA	841	C
33	FA	843	U
33	FA	844	G
33	FA	845	A
33	FA	846	G
33	FA	859	G
33	FA	902	G
33	FA	914	A
33	FA	926	G
33	FA	927	G
33	FA	932	C
33	FA	934	C
33	FA	935	A
33	FA	960	U
33	FA	966	G
33	FA	969	A
33	FA	971	G
33	FA	974	A
33	FA	975	A
33	FA	976	G
33	FA	977	A
33	FA	983	A
33	FA	993	G
33	FA	1003	G
33	FA	1004	A
33	FA	1008	U
33	FA	1018	G
33	FA	1022	A
33	FA	1027	C
33	FA	1029	U
33	FA	1030	U
33	FA	1031	C
33	FA	1032	G
33	FA	1033	G
33	FA	1034	G
33	FA	1037	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	1050	G
33	FA	1052	U
33	FA	1054	C
33	FA	1065	U
33	FA	1066	C
33	FA	1086	U
33	FA	1094	G
33	FA	1095	U
33	FA	1101	A
33	FA	1102	A
33	FA	1104	G
33	FA	1108	G
33	FA	1124	G
33	FA	1125	U
33	FA	1130	A
33	FA	1133	G
33	FA	1135	U
33	FA	1137	C
33	FA	1139	G
33	FA	1142	G
33	FA	1159	U
33	FA	1160	G
33	FA	1167	A
33	FA	1168	U
33	FA	1181	G
33	FA	1182	G
33	FA	1183	U
33	FA	1196	A
33	FA	1197	A
33	FA	1202	U
33	FA	1212	U
33	FA	1213	A
33	FA	1226	C
33	FA	1227	A
33	FA	1238	A
33	FA	1240	U
33	FA	1249	C
33	FA	1253	G
33	FA	1256	A
33	FA	1279	G
33	FA	1280	A
33	FA	1286	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	1287	A
33	FA	1293	C
33	FA	1299	A
33	FA	1302	C
33	FA	1303	C
33	FA	1305	G
33	FA	1316	G
33	FA	1317	C
33	FA	1318	A
33	FA	1322	C
33	FA	1323	G
33	FA	1332	A
33	FA	1336	C
33	FA	1337	G
33	FA	1346	A
33	FA	1353	G
33	FA	1364	U
33	FA	1371	G
33	FA	1380	U
33	FA	1398	A
33	FA	1406	U
33	FA	1411	C
33	FA	1419	G
33	FA	1440	U
33	FA	1441	A
33	FA	1446	A
33	FA	1452	C
33	FA	1454	G
33	FA	1469	C
33	FA	1470	U
33	FA	1476	A
33	FA	1487	G
33	FA	1492	A
33	FA	1493	A
33	FA	1494	G
33	FA	1497	G
33	FA	1499	A
33	FA	1503	A
33	FA	1506	U
33	FA	1517	G
33	FA	1519	A
33	FA	1529	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	FA	1530	G
33	FA	1534	A
1	GA	10	A
1	GA	12	U
1	GA	15	G
1	GA	34	U
1	GA	35	G
1	GA	42	A
1	GA	43	G
1	GA	45	G
1	GA	46	G
1	GA	61	C
1	GA	71	A
1	GA	74	A
1	GA	75	G
1	GA	80	G
1	GA	82	U
1	GA	84	A
1	GA	96	C
1	GA	98	G
1	GA	101	A
1	GA	118	A
1	GA	119	A
1	GA	120	U
1	GA	131	A
1	GA	135	U
1	GA	136	G
1	GA	137	U
1	GA	138	U
1	GA	139	U
1	GA	140	C
1	GA	141	G
1	GA	142	A
1	GA	143	C
1	GA	144	A
1	GA	149	A
1	GA	158	U
1	GA	159	G
1	GA	162	U
1	GA	163	C
1	GA	164	C
1	GA	166	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	174	U
1	GA	181	A
1	GA	188	G
1	GA	196	A
1	GA	199	A
1	GA	215	G
1	GA	216	A
1	GA	222	A
1	GA	230	G
1	GA	248	G
1	GA	255	A
1	GA	264	C
1	GA	265	A
1	GA	266	G
1	GA	267	C
1	GA	272	A
1	GA	273	G
1	GA	276	U
1	GA	277	G
1	GA	278	A
1	GA	281	C
1	GA	285	G
1	GA	302	C
1	GA	311	A
1	GA	329	G
1	GA	330	A
1	GA	346	A
1	GA	353	C
1	GA	355	U
1	GA	361	G
1	GA	362	A
1	GA	371	A
1	GA	372	G
1	GA	382	A
1	GA	383	C
1	GA	386	G
1	GA	396	G
1	GA	404	A
1	GA	405	U
1	GA	411	G
1	GA	412	A
1	GA	424	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	455	C
1	GA	461	C
1	GA	480	A
1	GA	481	G
1	GA	490	C
1	GA	491	G
1	GA	504	A
1	GA	505	A
1	GA	509	C
1	GA	528	A
1	GA	529	A
1	GA	532	A
1	GA	533	G
1	GA	538	A
1	GA	543	G
1	GA	544	C
1	GA	546	U
1	GA	547	A
1	GA	548	G
1	GA	549	G
1	GA	550	C
1	GA	563	A
1	GA	573	U
1	GA	575	A
1	GA	586	A
1	GA	588	U
1	GA	603	A
1	GA	604	G
1	GA	613	A
1	GA	614	A
1	GA	615	U
1	GA	618	G
1	GA	622	G
1	GA	627	A
1	GA	631	A
1	GA	637	A
1	GA	645	C
1	GA	646	U
1	GA	647	G
1	GA	654	A
1	GA	655	A
1	GA	656	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	686	U
1	GA	714	U
1	GA	715	A
1	GA	717	C
1	GA	722	A
1	GA	730	A
1	GA	738	G
1	GA	747	U
1	GA	775	G
1	GA	776	G
1	GA	782	A
1	GA	784	G
1	GA	785	G
1	GA	789	A
1	GA	805	G
1	GA	812	C
1	GA	819	A
1	GA	827	U
1	GA	828	U
1	GA	845	A
1	GA	846	U
1	GA	847	U
1	GA	859	G
1	GA	876	C
1	GA	877	A
1	GA	878	A
1	GA	883	G
1	GA	884	U
1	GA	896	A
1	GA	897	C
1	GA	902	C
1	GA	910	A
1	GA	914	G
1	GA	932	U
1	GA	941	A
1	GA	946	C
1	GA	959	A
1	GA	961	C
1	GA	974	G
1	GA	983	A
1	GA	984	A
1	GA	985	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	995	C
1	GA	996	A
1	GA	1005	C
1	GA	1012	U
1	GA	1013	C
1	GA	1021	A
1	GA	1022	G
1	GA	1023	U
1	GA	1025	G
1	GA	1026	G
1	GA	1033	U
1	GA	1045	C
1	GA	1046	A
1	GA	1047	G
1	GA	1053	C
1	GA	1059	G
1	GA	1060	U
1	GA	1061	U
1	GA	1062	G
1	GA	1067	A
1	GA	1069	A
1	GA	1070	A
1	GA	1072	C
1	GA	1074	G
1	GA	1078	U
1	GA	1080	A
1	GA	1083	U
1	GA	1084	A
1	GA	1088	A
1	GA	1089	A
1	GA	1097	U
1	GA	1098	A
1	GA	1110	G
1	GA	1112	G
1	GA	1130	U
1	GA	1132	U
1	GA	1133	A
1	GA	1135	C
1	GA	1136	G
1	GA	1139	G
1	GA	1142	A
1	GA	1169	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	1170	C
1	GA	1171	G
1	GA	1175	A
1	GA	1176	U
1	GA	1180	U
1	GA	1181	U
1	GA	1186	G
1	GA	1236	G
1	GA	1238	G
1	GA	1244	A
1	GA	1248	G
1	GA	1250	G
1	GA	1253	A
1	GA	1256	G
1	GA	1266	G
1	GA	1271	G
1	GA	1272	A
1	GA	1273	U
1	GA	1281	G
1	GA	1300	G
1	GA	1301	A
1	GA	1305	C
1	GA	1306	C
1	GA	1313	U
1	GA	1317	G
1	GA	1352	U
1	GA	1365	A
1	GA	1368	G
1	GA	1378	A
1	GA	1379	U
1	GA	1383	A
1	GA	1386	C
1	GA	1395	A
1	GA	1397	U
1	GA	1416	G
1	GA	1419	A
1	GA	1420	A
1	GA	1427	A
1	GA	1428	C
1	GA	1434	A
1	GA	1435	G
1	GA	1452	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	1459	G
1	GA	1476	U
1	GA	1482	G
1	GA	1493	C
1	GA	1503	A
1	GA	1504	A
1	GA	1508	A
1	GA	1510	G
1	GA	1512	C
1	GA	1515	A
1	GA	1524	G
1	GA	1531	C
1	GA	1533	C
1	GA	1535	A
1	GA	1536	C
1	GA	1566	A
1	GA	1569	A
1	GA	1578	U
1	GA	1581	G
1	GA	1583	A
1	GA	1584	U
1	GA	1585	C
1	GA	1607	C
1	GA	1608	A
1	GA	1610	A
1	GA	1627	G
1	GA	1647	U
1	GA	1648	U
1	GA	1649	G
1	GA	1652	A
1	GA	1674	G
1	GA	1714	U
1	GA	1715	G
1	GA	1723	G
1	GA	1729	U
1	GA	1730	C
1	GA	1731	G
1	GA	1732	C
1	GA	1737	G
1	GA	1738	G
1	GA	1739	A
1	GA	1744	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	1758	U
1	GA	1764	C
1	GA	1773	A
1	GA	1791	A
1	GA	1800	C
1	GA	1801	A
1	GA	1802	A
1	GA	1808	A
1	GA	1811	G
1	GA	1816	C
1	GA	1833	C
1	GA	1847	A
1	GA	1848	A
1	GA	1858	A
1	GA	1869	G
1	GA	1870	C
1	GA	1871	A
1	GA	1872	A
1	GA	1884	G
1	GA	1906	G
1	GA	1913	A
1	GA	1914	C
1	GA	1927	A
1	GA	1929	G
1	GA	1930	G
1	GA	1937	A
1	GA	1938	A
1	GA	1955	U
1	GA	1967	C
1	GA	1970	A
1	GA	1971	U
1	GA	1972	G
1	GA	1991	U
1	GA	1993	U
1	GA	1997	C
1	GA	2017	U
1	GA	2020	A
1	GA	2022	U
1	GA	2023	C
1	GA	2031	A
1	GA	2033	A
1	GA	2043	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	2055	C
1	GA	2056	G
1	GA	2060	A
1	GA	2061	G
1	GA	2062	A
1	GA	2069	G
1	GA	2072	C
1	GA	2104	C
1	GA	2105	U
1	GA	2106	U
1	GA	2107	G
1	GA	2108	A
1	GA	2109	U
1	GA	2110	G
1	GA	2134	A
1	GA	2135	A
1	GA	2137	U
1	GA	2138	G
1	GA	2140	G
1	GA	2141	G
1	GA	2142	A
1	GA	2143	C
1	GA	2144	G
1	GA	2145	C
1	GA	2147	A
1	GA	2148	G
1	GA	2149	U
1	GA	2150	C
1	GA	2151	U
1	GA	2152	G
1	GA	2153	C
1	GA	2155	U
1	GA	2156	G
1	GA	2157	G
1	GA	2180	U
1	GA	2182	U
1	GA	2183	A
1	GA	2185	U
1	GA	2186	G
1	GA	2194	U
1	GA	2198	A
1	GA	2199	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	2203	U
1	GA	2204	G
1	GA	2211	A
1	GA	2212	A
1	GA	2214	C
1	GA	2225	A
1	GA	2226	C
1	GA	2238	G
1	GA	2239	G
1	GA	2250	G
1	GA	2268	A
1	GA	2273	A
1	GA	2278	A
1	GA	2283	C
1	GA	2284	A
1	GA	2286	G
1	GA	2287	A
1	GA	2288	A
1	GA	2305	U
1	GA	2308	G
1	GA	2311	A
1	GA	2317	A
1	GA	2322	A
1	GA	2325	G
1	GA	2327	A
1	GA	2335	A
1	GA	2336	A
1	GA	2347	C
1	GA	2354	C
1	GA	2361	G
1	GA	2383	G
1	GA	2385	C
1	GA	2396	G
1	GA	2402	U
1	GA	2403	C
1	GA	2406	A
1	GA	2423	U
1	GA	2424	C
1	GA	2425	A
1	GA	2426	A
1	GA	2428	G
1	GA	2429	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	2430	A
1	GA	2435	A
1	GA	2441	U
1	GA	2448	A
1	GA	2476	A
1	GA	2484	G
1	GA	2491	U
1	GA	2498	C
1	GA	2502	G
1	GA	2505	G
1	GA	2506	U
1	GA	2507	C
1	GA	2518	A
1	GA	2529	G
1	GA	2554	U
1	GA	2566	A
1	GA	2567	G
1	GA	2573	C
1	GA	2585	U
1	GA	2602	A
1	GA	2603	G
1	GA	2609	U
1	GA	2613	U
1	GA	2629	U
1	GA	2663	G
1	GA	2671	G
1	GA	2689	U
1	GA	2690	U
1	GA	2714	G
1	GA	2716	C
1	GA	2726	A
1	GA	2733	A
1	GA	2744	G
1	GA	2748	A
1	GA	2757	A
1	GA	2760	C
1	GA	2765	A
1	GA	2769	U
1	GA	2778	A
1	GA	2779	U
1	GA	2791	G
1	GA	2798	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	2800	A
1	GA	2801	G
1	GA	2820	A
1	GA	2821	A
1	GA	2849	U
1	GA	2861	U
1	GA	2867	G
1	GA	2883	A
1	GA	2884	U
1	GA	2885	G
1	GA	2903	U
2	GB	3	C
2	GB	15	A
2	GB	16	G
2	GB	21	G
2	GB	24	G
2	GB	25	U
2	GB	30	C
2	GB	35	C
2	GB	42	C
2	GB	44	G
2	GB	56	G
2	GB	84	G
2	GB	87	U
2	GB	88	C
2	GB	89	U
2	GB	90	C
2	GB	99	A
2	GB	109	A
2	GB	119	A
33	HA	4	U
33	HA	5	U
33	HA	7	A
33	HA	9	G
33	HA	32	A
33	HA	39	G
33	HA	40	C
33	HA	47	C
33	HA	48	C
33	HA	51	A
33	HA	52	C
33	HA	70	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	71	A
33	HA	72	A
33	HA	73	C
33	HA	75	G
33	HA	76	G
33	HA	77	A
33	HA	78	A
33	HA	79	G
33	HA	80	A
33	HA	81	A
33	HA	82	G
33	HA	83	C
33	HA	85	U
33	HA	86	G
33	HA	89	U
33	HA	90	C
33	HA	92	U
33	HA	98	A
33	HA	116	A
33	HA	121	U
33	HA	122	G
33	HA	130	A
33	HA	131	A
33	HA	141	G
33	HA	143	A
33	HA	144	G
33	HA	159	G
33	HA	163	C
33	HA	164	G
33	HA	166	U
33	HA	173	U
33	HA	177	G
33	HA	182	A
33	HA	183	C
33	HA	191	G
33	HA	205	A
33	HA	208	U
33	HA	209	U
33	HA	210	C
33	HA	211	G
33	HA	240	G
33	HA	245	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	247	G
33	HA	251	G
33	HA	258	G
33	HA	266	G
33	HA	267	C
33	HA	273	U
33	HA	285	C
33	HA	289	G
33	HA	321	A
33	HA	328	C
33	HA	329	A
33	HA	330	C
33	HA	332	G
33	HA	344	A
33	HA	345	C
33	HA	346	G
33	HA	347	G
33	HA	352	C
33	HA	354	G
33	HA	367	U
33	HA	372	C
33	HA	373	A
33	HA	384	G
33	HA	392	C
33	HA	406	G
33	HA	408	A
33	HA	411	A
33	HA	412	A
33	HA	413	G
33	HA	421	U
33	HA	423	G
33	HA	424	G
33	HA	429	U
33	HA	430	A
33	HA	435	A
33	HA	441	A
33	HA	452	A
33	HA	455	G
33	HA	457	G
33	HA	458	U
33	HA	459	A
33	HA	461	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	462	G
33	HA	463	U
33	HA	466	A
33	HA	467	U
33	HA	468	A
33	HA	481	G
33	HA	482	A
33	HA	484	G
33	HA	485	U
33	HA	486	U
33	HA	497	G
33	HA	498	A
33	HA	500	G
33	HA	508	U
33	HA	509	A
33	HA	511	C
33	HA	518	C
33	HA	521	G
33	HA	527	G
33	HA	532	A
33	HA	533	A
33	HA	547	A
33	HA	556	C
33	HA	559	A
33	HA	562	U
33	HA	564	C
33	HA	572	A
33	HA	573	A
33	HA	576	C
33	HA	577	G
33	HA	579	A
33	HA	588	G
33	HA	596	A
33	HA	604	G
33	HA	650	G
33	HA	653	U
33	HA	665	A
33	HA	675	A
33	HA	702	A
33	HA	721	G
33	HA	723	U
33	HA	724	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	731	G
33	HA	748	G
33	HA	755	G
33	HA	777	A
33	HA	793	U
33	HA	794	A
33	HA	802	A
33	HA	815	A
33	HA	817	C
33	HA	828	U
33	HA	829	G
33	HA	841	C
33	HA	843	U
33	HA	845	A
33	HA	846	G
33	HA	859	G
33	HA	902	G
33	HA	914	A
33	HA	926	G
33	HA	927	G
33	HA	932	C
33	HA	934	C
33	HA	935	A
33	HA	960	U
33	HA	966	G
33	HA	969	A
33	HA	971	G
33	HA	974	A
33	HA	975	A
33	HA	976	G
33	HA	977	A
33	HA	983	A
33	HA	993	G
33	HA	1003	G
33	HA	1004	A
33	HA	1008	U
33	HA	1018	G
33	HA	1022	A
33	HA	1027	C
33	HA	1029	U
33	HA	1030	U
33	HA	1031	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	1033	G
33	HA	1034	G
33	HA	1037	C
33	HA	1050	G
33	HA	1054	C
33	HA	1065	U
33	HA	1066	C
33	HA	1086	U
33	HA	1094	G
33	HA	1095	U
33	HA	1101	A
33	HA	1102	A
33	HA	1104	G
33	HA	1108	G
33	HA	1124	G
33	HA	1125	U
33	HA	1130	A
33	HA	1133	G
33	HA	1135	U
33	HA	1136	C
33	HA	1137	C
33	HA	1139	G
33	HA	1142	G
33	HA	1159	U
33	HA	1160	G
33	HA	1167	A
33	HA	1168	U
33	HA	1169	A
33	HA	1181	G
33	HA	1182	G
33	HA	1183	U
33	HA	1196	A
33	HA	1197	A
33	HA	1202	U
33	HA	1212	U
33	HA	1213	A
33	HA	1226	C
33	HA	1227	A
33	HA	1238	A
33	HA	1240	U
33	HA	1249	C
33	HA	1250	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	1253	G
33	HA	1256	A
33	HA	1279	G
33	HA	1280	A
33	HA	1286	U
33	HA	1287	A
33	HA	1292	G
33	HA	1293	C
33	HA	1299	A
33	HA	1302	C
33	HA	1303	C
33	HA	1305	G
33	HA	1316	G
33	HA	1317	C
33	HA	1318	A
33	HA	1322	C
33	HA	1323	G
33	HA	1332	A
33	HA	1336	C
33	HA	1337	G
33	HA	1346	A
33	HA	1353	G
33	HA	1364	U
33	HA	1371	G
33	HA	1380	U
33	HA	1398	A
33	HA	1406	U
33	HA	1411	C
33	HA	1412	C
33	HA	1419	G
33	HA	1441	A
33	HA	1446	A
33	HA	1452	C
33	HA	1453	G
33	HA	1454	G
33	HA	1469	C
33	HA	1470	U
33	HA	1476	A
33	HA	1487	G
33	HA	1492	A
33	HA	1493	A
33	HA	1494	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	HA	1497	G
33	HA	1499	A
33	HA	1503	A
33	HA	1506	U
33	HA	1517	G
33	HA	1519	A
33	HA	1529	G
33	HA	1530	G
33	HA	1534	A

All (266) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	100	U
1	AA	119	A
1	AA	137	U
1	AA	265	A
1	AA	271	G
1	AA	277	G
1	AA	301	G
1	AA	403	U
1	AA	404	A
1	AA	479	A
1	AA	503	A
1	AA	527	C
1	AA	613	A
1	AA	655	A
1	AA	764	A
1	AA	784	G
1	AA	846	U
1	AA	882	G
1	AA	931	U
1	AA	960	A
1	AA	1020	A
1	AA	1025	G
1	AA	1083	U
1	AA	1088	A
1	AA	1247	A
1	AA	1378	A
1	AA	1458	U
1	AA	1475	G
1	AA	1509	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1535	A
1	AA	1626	A
1	AA	1738	G
1	AA	1757	A
1	AA	1847	A
1	AA	1857	G
1	AA	1870	C
1	AA	1939	U
1	AA	2108	A
1	AA	2142	A
1	AA	2153	C
1	AA	2211	A
1	AA	2286	G
1	AA	2326	C
1	AA	2423	U
1	AA	2585	U
1	AA	2756	U
1	AA	2873	A
1	AA	2902	C
33	BA	51	A
33	BA	79	G
33	BA	115	G
33	BA	250	A
33	BA	429	U
33	BA	484	G
33	BA	499	A
33	BA	701	U
33	BA	913	A
33	BA	1049	U
33	BA	1086	U
33	BA	1101	A
33	BA	1136	C
33	BA	1201	A
33	BA	1302	C
33	BA	1331	G
33	BA	1336	C
33	BA	1451	U
1	CA	100	U
1	CA	119	A
1	CA	137	U
1	CA	265	A
1	CA	271	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	277	G
1	CA	301	G
1	CA	403	U
1	CA	404	A
1	CA	479	A
1	CA	503	A
1	CA	527	C
1	CA	613	A
1	CA	655	A
1	CA	784	G
1	CA	846	U
1	CA	876	C
1	CA	882	G
1	CA	931	U
1	CA	960	A
1	CA	984	A
1	CA	1020	A
1	CA	1025	G
1	CA	1069	A
1	CA	1083	U
1	CA	1088	A
1	CA	1247	A
1	CA	1378	A
1	CA	1458	U
1	CA	1475	G
1	CA	1509	A
1	CA	1535	A
1	CA	1626	A
1	CA	1738	G
1	CA	1757	A
1	CA	1847	A
1	CA	1857	G
1	CA	1870	C
1	CA	1913	A
1	CA	1939	U
1	CA	2154	A
1	CA	2211	A
1	CA	2286	G
1	CA	2321	U
1	CA	2326	C
1	CA	2423	U
1	CA	2585	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	2756	U
1	CA	2873	A
1	CA	2902	C
2	CB	89	U
33	DA	51	A
33	DA	115	G
33	DA	209	U
33	DA	250	A
33	DA	429	U
33	DA	484	G
33	DA	499	A
33	DA	701	U
33	DA	913	A
33	DA	1049	U
33	DA	1101	A
33	DA	1136	C
33	DA	1145	A
33	DA	1201	A
33	DA	1302	C
33	DA	1331	G
33	DA	1336	C
33	DA	1451	U
1	EA	119	A
1	EA	137	U
1	EA	265	A
1	EA	271	G
1	EA	277	G
1	EA	301	G
1	EA	403	U
1	EA	404	A
1	EA	479	A
1	EA	503	A
1	EA	527	C
1	EA	613	A
1	EA	655	A
1	EA	764	A
1	EA	784	G
1	EA	846	U
1	EA	882	G
1	EA	931	U
1	EA	960	A
1	EA	1020	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	EA	1025	G
1	EA	1083	U
1	EA	1088	A
1	EA	1176	U
1	EA	1247	A
1	EA	1378	A
1	EA	1458	U
1	EA	1475	G
1	EA	1509	A
1	EA	1535	A
1	EA	1626	A
1	EA	1737	G
1	EA	1757	A
1	EA	1847	A
1	EA	1857	G
1	EA	1870	C
1	EA	1913	A
1	EA	1939	U
1	EA	2146	C
1	EA	2286	G
1	EA	2321	U
1	EA	2326	C
1	EA	2423	U
1	EA	2756	U
1	EA	2873	A
33	FA	51	A
33	FA	115	G
33	FA	250	A
33	FA	429	U
33	FA	484	G
33	FA	499	A
33	FA	701	U
33	FA	913	A
33	FA	1049	U
33	FA	1101	A
33	FA	1136	C
33	FA	1201	A
33	FA	1302	C
33	FA	1331	G
33	FA	1336	C
33	FA	1451	U
33	FA	1493	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	100	U
1	GA	119	A
1	GA	137	U
1	GA	271	G
1	GA	301	G
1	GA	403	U
1	GA	404	A
1	GA	479	A
1	GA	503	A
1	GA	527	C
1	GA	613	A
1	GA	655	A
1	GA	764	A
1	GA	784	G
1	GA	846	U
1	GA	876	C
1	GA	877	A
1	GA	882	G
1	GA	901	C
1	GA	931	U
1	GA	960	A
1	GA	984	A
1	GA	1020	A
1	GA	1025	G
1	GA	1069	A
1	GA	1079	C
1	GA	1083	U
1	GA	1087	G
1	GA	1088	A
1	GA	1095	A
1	GA	1247	A
1	GA	1378	A
1	GA	1458	U
1	GA	1475	G
1	GA	1509	A
1	GA	1535	A
1	GA	1626	A
1	GA	1738	G
1	GA	1757	A
1	GA	1847	A
1	GA	1857	G
1	GA	1870	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GA	1939	U
1	GA	2211	A
1	GA	2286	G
1	GA	2326	C
1	GA	2423	U
1	GA	2585	U
1	GA	2756	U
1	GA	2873	A
1	GA	2902	C
33	HA	51	A
33	HA	80	A
33	HA	115	G
33	HA	250	A
33	HA	429	U
33	HA	484	G
33	HA	499	A
33	HA	701	U
33	HA	913	A
33	HA	1030	U
33	HA	1049	U
33	HA	1101	A
33	HA	1136	C
33	HA	1201	A
33	HA	1331	G
33	HA	1336	C
33	HA	1451	U
33	HA	1452	C

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

12 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
55	KBE	BW	1	55	8,8,9	6.06	2 (25%)	6,8,10	0.92	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
55	DPP	BW	2	55	5,5,6	7.85	1 (20%)	3,5,7	2.83	1 (33%)
55	UAL	BW	5	55	7,8,9	5.18	4 (57%)	6,9,11	2.07	1 (16%)
55	5OH	BW	6	55	12,12,13	5.58	3 (25%)	13,16,18	2.22	4 (30%)
55	KBE	DW	1	55	8,8,9	6.27	2 (25%)	6,8,10	1.03	0
55	DPP	DW	2	55	5,5,6	7.70	1 (20%)	3,5,7	1.51	1 (33%)
55	UAL	DW	5	55	7,8,9	4.88	4 (57%)	6,9,11	1.79	1 (16%)
55	5OH	DW	6	55	12,12,13	5.48	4 (33%)	13,16,18	1.32	2 (15%)
55	KBE	FW	1	55	8,8,9	5.93	2 (25%)	6,8,10	0.82	0
55	DPP	FW	2	55	5,5,6	8.31	1 (20%)	3,5,7	1.34	1 (33%)
55	UAL	FW	5	55	7,8,9	4.86	4 (57%)	6,9,11	1.92	2 (33%)
55	5OH	FW	6	55	12,12,13	5.94	4 (33%)	13,16,18	1.46	4 (30%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	KBE	BW	1	55	-	0/6/7/8	0/0/0/0
55	DPP	BW	2	55	-	0/2/4/6	0/0/0/0
55	UAL	BW	5	55	-	0/3/7/9	0/0/0/0
55	5OH	BW	6	55	-	0/2/18/20	0/1/1/1
55	KBE	DW	1	55	-	0/6/7/8	0/0/0/0
55	DPP	DW	2	55	-	0/2/4/6	0/0/0/0
55	UAL	DW	5	55	-	0/3/7/9	0/0/0/0
55	5OH	DW	6	55	-	0/2/18/20	0/1/1/1
55	KBE	FW	1	55	-	0/6/7/8	0/0/0/0
55	DPP	FW	2	55	-	0/2/4/6	0/0/0/0
55	UAL	FW	5	55	-	0/3/7/9	0/0/0/0
55	5OH	FW	6	55	-	0/2/18/20	0/1/1/1

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	FW	2	DPP	O-C	18.46	1.24	1.11
55	DW	1	KBE	O-C	17.48	1.23	1.11
55	BW	2	DPP	O-C	17.44	1.23	1.11
55	DW	2	DPP	O-C	17.14	1.23	1.11
55	FW	6	5OH	O-C	16.99	1.23	1.11
55	BW	1	KBE	O-C	16.90	1.23	1.11

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	FW	1	KBE	O-C	16.53	1.22	1.11
55	BW	6	5OH	O-C	16.25	1.22	1.11
55	DW	6	5OH	O-C	15.44	1.22	1.11
55	BW	5	UAL	CB-CA	12.09	1.51	1.35
55	DW	5	UAL	CB-CA	11.43	1.50	1.35
55	FW	5	UAL	CB-CA	11.43	1.50	1.35
55	FW	6	5OH	CQ-NP	10.44	1.47	1.35
55	DW	6	5OH	CQ-NP	10.05	1.47	1.35
55	BW	6	5OH	CQ-NP	9.63	1.46	1.35
55	BW	5	UAL	CB-N1	4.23	1.46	1.35
55	DW	5	UAL	CB-N1	4.06	1.46	1.35
55	FW	5	UAL	CB-N1	3.84	1.45	1.35
55	FW	6	5OH	CQ-NQ	3.26	1.42	1.34
55	DW	5	UAL	C1-N1	3.24	1.46	1.40
55	BW	5	UAL	C1-N1	3.14	1.45	1.40
55	BW	6	5OH	CQ-NQ	3.13	1.42	1.34
55	DW	6	5OH	CQ-NQ	3.00	1.41	1.34
55	BW	5	UAL	CA-N	2.95	1.42	1.35
55	FW	5	UAL	C1-N1	2.91	1.45	1.40
55	FW	5	UAL	CA-N	2.80	1.41	1.35
55	FW	6	5OH	CR-CB	-2.70	1.48	1.53
55	DW	6	5OH	CR-CB	-2.64	1.48	1.53
55	FW	1	KBE	CB-N	-2.29	1.40	1.47
55	DW	1	KBE	CB-N	-2.25	1.40	1.47
55	DW	5	UAL	CA-N	2.22	1.40	1.35
55	BW	1	KBE	CB-N	-2.20	1.40	1.47

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	BW	2	DPP	C-CA-N	-4.66	109.18	113.83
55	BW	5	UAL	CA-CB-N1	-4.27	112.65	124.09
55	BW	6	5OH	C-CA-N	-3.87	105.65	111.94
55	FW	5	UAL	CA-CB-N1	-3.81	113.88	124.09
55	BW	6	5OH	CR-CB-NP	3.75	114.17	108.69
55	BW	6	5OH	CS-CR-CB	3.71	119.80	111.78
55	DW	5	UAL	CA-CB-N1	-3.66	114.27	124.09
55	BW	6	5OH	CR-CS-NR	2.87	118.05	109.27
55	FW	6	5OH	CA-CB-NP	2.70	114.00	110.31
55	DW	6	5OH	C-CA-N	-2.56	107.77	111.94
55	DW	2	DPP	C-CA-N	-2.49	111.34	113.83
55	DW	6	5OH	CR-CB-CA	-2.24	110.76	112.81

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	FW	6	5OH	CR-CB-CA	-2.20	110.79	112.81
55	FW	2	DPP	C-CA-N	-2.20	111.63	113.83
55	FW	6	5OH	C-CA-N	2.06	115.28	111.94
55	FW	5	UAL	N2-C1-N1	2.02	120.07	115.64
55	FW	6	5OH	NP-CQ-NR	-2.01	120.13	122.64

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.5 Carbohydrates i

There are no carbohydrates in this entry.

5.6 Ligand geometry i

Of 748 ligands modelled in this entry, 744 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
58	GCP	BV	801	56	34,34,34	2.48	9 (26%)	52,54,54	2.28	12 (23%)
58	GCP	DV	801	56	34,34,34	2.62	8 (23%)	52,54,54	2.21	12 (23%)
58	GCP	FV	801	56	34,34,34	1.65	9 (26%)	52,54,54	2.84	9 (17%)
58	GCP	HV	801	56	34,34,34	2.55	9 (26%)	52,54,54	2.35	9 (17%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	GCP	BV	801	56	-	0/20/38/38	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	GCP	DV	801	56	-	0/20/38/38	0/3/3/3
58	GCP	FV	801	56	-	0/20/38/38	0/3/3/3
58	GCP	HV	801	56	-	0/20/38/38	0/3/3/3

All (35) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	DV	801	GCP	C2-N2	8.89	1.45	1.32
58	HV	801	GCP	C2-N2	8.62	1.45	1.32
58	BV	801	GCP	C2-N2	8.60	1.45	1.32
58	DV	801	GCP	C2'-C1'	-6.36	1.44	1.53
58	BV	801	GCP	C2'-C1'	-5.87	1.45	1.53
58	DV	801	GCP	O4'-C1'	5.73	1.48	1.41
58	HV	801	GCP	O4'-C1'	5.67	1.48	1.41
58	BV	801	GCP	O4'-C1'	5.18	1.47	1.41
58	HV	801	GCP	C2'-C1'	-5.05	1.46	1.53
58	HV	801	GCP	PG-C3B	4.28	1.83	1.79
58	DV	801	GCP	PG-C3B	4.18	1.83	1.79
58	BV	801	GCP	C2'-C3'	-4.06	1.42	1.53
58	DV	801	GCP	C2'-C3'	-4.01	1.42	1.53
58	HV	801	GCP	C2'-C3'	-3.89	1.42	1.53
58	HV	801	GCP	PB-C3B	3.79	1.83	1.79
58	BV	801	GCP	PG-C3B	3.59	1.83	1.79
58	FV	801	GCP	PG-O3G	3.47	1.61	1.54
58	FV	801	GCP	PG-O2G	3.43	1.61	1.54
58	DV	801	GCP	PB-C3B	3.22	1.82	1.79
58	FV	801	GCP	C5-C4	3.10	1.47	1.40
58	BV	801	GCP	C1'-N9	-2.90	1.39	1.48
58	DV	801	GCP	C1'-N9	-2.89	1.39	1.48
58	FV	801	GCP	PB-O3A	2.65	1.61	1.58
58	FV	801	GCP	C5-N7	-2.58	1.35	1.38
58	DV	801	GCP	C3'-C4'	-2.58	1.46	1.53
58	HV	801	GCP	C1'-N9	-2.57	1.40	1.48
58	FV	801	GCP	C4-N9	-2.57	1.34	1.37
58	HV	801	GCP	C3'-C4'	-2.47	1.46	1.53
58	BV	801	GCP	C3'-C4'	-2.46	1.46	1.53
58	FV	801	GCP	C2-N2	2.40	1.36	1.32
58	BV	801	GCP	PB-C3B	2.33	1.82	1.79
58	FV	801	GCP	C2-N3	2.31	1.36	1.33
58	BV	801	GCP	PB-O3A	-2.14	1.55	1.58
58	FV	801	GCP	PB-O2B	2.09	1.61	1.56
58	HV	801	GCP	O4'-C4'	2.05	1.49	1.45

All (42) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	FV	801	GCP	C6-C5-N7	14.71	136.12	134.14
58	BV	801	GCP	C4'-O4'-C1'	-8.69	100.17	109.72
58	HV	801	GCP	C6-C5-N7	-8.47	133.00	134.14
58	DV	801	GCP	C4'-O4'-C1'	-7.51	101.47	109.72
58	FV	801	GCP	C5-C4-N3	-6.53	118.55	126.07
58	BV	801	GCP	PB-C3B-PG	-6.18	107.14	118.95
58	DV	801	GCP	PB-C3B-PG	-6.17	107.18	118.95
58	HV	801	GCP	C4'-O4'-C1'	-6.09	103.03	109.72
58	FV	801	GCP	N3-C4-N9	5.57	135.08	126.91
58	DV	801	GCP	C2-N3-C4	5.26	121.61	115.30
58	HV	801	GCP	N3-C4-N9	5.19	134.53	126.91
58	FV	801	GCP	PB-C3B-PG	-4.94	109.51	118.95
58	HV	801	GCP	C5-C4-N3	-4.93	120.39	126.07
58	FV	801	GCP	C2-N3-C4	4.75	121.00	115.30
58	DV	801	GCP	C5-C4-N3	-4.74	120.61	126.07
58	DV	801	GCP	N3-C4-N9	4.72	133.83	126.91
58	HV	801	GCP	PA-O3A-PB	-4.61	118.16	132.02
58	BV	801	GCP	C2-N3-C4	4.58	120.79	115.30
58	HV	801	GCP	C2-N3-C4	4.57	120.78	115.30
58	HV	801	GCP	PB-C3B-PG	-4.39	110.58	118.95
58	BV	801	GCP	N3-C4-N9	4.35	133.29	126.91
58	BV	801	GCP	C5-C4-N3	-4.23	121.20	126.07
58	BV	801	GCP	PA-O3A-PB	-3.94	120.17	132.02
58	FV	801	GCP	PA-O3A-PB	-3.82	120.54	132.02
58	FV	801	GCP	C6-N1-C2	3.72	122.30	120.20
58	HV	801	GCP	C3'-C2'-C1'	3.56	106.50	100.92
58	FV	801	GCP	C3'-C2'-C1'	3.42	106.29	100.92
58	DV	801	GCP	PA-O3A-PB	-3.32	122.03	132.02
58	HV	801	GCP	O3A-PA-O5'	3.15	111.27	102.91
58	BV	801	GCP	O4'-C1'-N9	3.08	114.81	108.10
58	DV	801	GCP	O3A-PA-O5'	3.07	111.05	102.91
58	DV	801	GCP	N2-C2-N1	3.04	121.08	117.82
58	BV	801	GCP	C1'-N9-C4	-2.97	121.50	126.64
58	FV	801	GCP	C4-C5-N7	-2.93	106.58	109.41
58	BV	801	GCP	N2-C2-N1	2.72	120.73	117.82
58	DV	801	GCP	C1'-N9-C4	-2.68	122.00	126.64
58	BV	801	GCP	O3A-PA-O5'	2.66	109.97	102.91
58	DV	801	GCP	C8-N9-C4	2.37	108.88	106.96
58	BV	801	GCP	C8-N9-C4	2.33	108.85	106.96
58	BV	801	GCP	O3G-PG-C3B	2.21	111.77	106.40
58	DV	801	GCP	C2'-C3'-C4'	2.07	106.78	102.64
58	DV	801	GCP	N1-C2-N3	-2.03	119.04	121.78

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	2854/2904 (98%)	-0.06	72 (2%) 54 64	4, 28, 65, 87	0
1	CA	2854/2904 (98%)	-0.08	69 (2%) 56 65	3, 25, 63, 88	0
1	EA	2854/2904 (98%)	-0.08	51 (1%) 65 74	1, 14, 60, 92	0
1	GA	2854/2904 (98%)	-0.05	80 (2%) 50 59	5, 29, 68, 89	0
2	AB	118/120 (98%)	-0.33	0 100 100	18, 48, 62, 72	0
2	CB	118/120 (98%)	-0.49	0 100 100	18, 41, 54, 72	0
2	EB	118/120 (98%)	-0.38	0 100 100	3, 25, 45, 56	0
2	GB	118/120 (98%)	-0.38	1 (0%) 83 89	23, 44, 61, 78	0
3	AC	271/273 (99%)	-0.09	2 (0%) 84 90	5, 26, 40, 60	0
3	CC	271/273 (99%)	-0.20	1 (0%) 90 94	2, 18, 34, 44	0
3	EC	271/273 (99%)	-0.28	1 (0%) 90 94	1, 15, 32, 57	0
3	GC	271/273 (99%)	-0.26	0 100 100	3, 17, 30, 42	0
4	AD	209/209 (100%)	-0.09	3 (1%) 72 80	6, 27, 47, 60	0
4	CD	209/209 (100%)	0.00	6 (2%) 49 58	3, 31, 52, 61	0
4	ED	209/209 (100%)	-0.15	5 (2%) 56 65	1, 20, 43, 56	0
4	GD	209/209 (100%)	0.15	7 (3%) 44 53	4, 36, 54, 62	0
5	AE	201/201 (100%)	0.26	11 (5%) 24 29	7, 33, 55, 63	0
5	CE	201/201 (100%)	0.20	12 (5%) 21 25	4, 33, 54, 60	0
5	EE	201/201 (100%)	-0.03	4 (1%) 62 71	2, 19, 45, 69	0
5	GE	201/201 (100%)	0.39	14 (6%) 16 19	7, 41, 56, 67	0
6	AF	177/179 (98%)	2.72	99 (55%) 0 0	45, 61, 71, 79	0
6	CF	177/179 (98%)	0.79	25 (14%) 3 5	32, 49, 63, 67	0
6	EF	177/179 (98%)	0.70	21 (11%) 5 7	19, 42, 61, 68	0
6	GF	177/179 (98%)	2.20	79 (44%) 1 0	36, 61, 72, 76	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
7	AG	176/177 (99%)	0.53	18 (10%) 7 9	20, 42, 60, 69	0
7	CG	176/177 (99%)	0.75	32 (18%) 2 3	23, 46, 61, 69	0
7	EG	176/177 (99%)	0.25	16 (9%) 9 12	19, 37, 55, 63	0
7	GG	176/177 (99%)	0.82	33 (18%) 2 2	32, 48, 63, 68	0
8	AH	50/50 (100%)	1.36	10 (20%) 2 2	28, 51, 67, 77	0
8	CH	50/50 (100%)	1.70	19 (38%) 1 0	39, 56, 68, 74	0
8	EH	50/50 (100%)	1.60	16 (32%) 1 1	24, 49, 69, 79	0
8	GH	50/50 (100%)	1.56	19 (38%) 1 0	26, 46, 64, 69	0
9	AI	141/142 (99%)	2.39	65 (46%) 1 0	44, 64, 75, 82	0
9	CI	141/142 (99%)	2.79	79 (56%) 0 0	49, 63, 73, 76	0
9	EI	141/142 (99%)	3.24	90 (63%) 0 0	48, 65, 77, 82	0
9	GI	141/142 (99%)	4.43	114 (80%) 0 0	49, 68, 77, 81	0
10	AJ	142/142 (100%)	-0.06	4 (2%) 50 59	12, 29, 41, 60	0
10	CJ	142/142 (100%)	0.03	3 (2%) 60 69	13, 29, 42, 58	0
10	EJ	142/142 (100%)	-0.15	1 (0%) 84 90	3, 13, 30, 47	0
10	GJ	142/142 (100%)	0.20	7 (4%) 28 34	15, 32, 47, 61	0
11	AK	122/123 (99%)	-0.14	4 (3%) 44 53	5, 19, 34, 54	0
11	CK	122/123 (99%)	-0.10	2 (1%) 68 78	9, 22, 39, 56	0
11	EK	122/123 (99%)	-0.04	4 (3%) 44 53	4, 18, 37, 49	0
11	GK	122/123 (99%)	0.22	2 (1%) 68 78	13, 27, 42, 59	0
12	AL	143/144 (99%)	0.37	7 (4%) 28 34	10, 30, 48, 58	0
12	CL	143/144 (99%)	0.15	4 (2%) 50 59	3, 29, 47, 62	0
12	EL	143/144 (99%)	0.19	8 (5%) 24 28	1, 18, 39, 54	0
12	GL	143/144 (99%)	0.67	23 (16%) 2 3	10, 35, 53, 67	0
13	AM	136/136 (100%)	0.06	3 (2%) 59 67	8, 19, 37, 55	0
13	CM	136/136 (100%)	-0.01	1 (0%) 84 90	8, 21, 38, 56	0
13	EM	136/136 (100%)	-0.19	2 (1%) 70 79	1, 11, 29, 60	0
13	GM	136/136 (100%)	0.29	8 (5%) 22 25	11, 28, 45, 58	0
14	AN	120/127 (94%)	0.20	5 (4%) 35 41	14, 29, 41, 62	0
14	CN	120/127 (94%)	0.08	4 (3%) 44 53	18, 31, 43, 62	0
14	EN	120/127 (94%)	-0.01	2 (1%) 67 76	6, 19, 32, 61	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
14	GN	120/127 (94%)	0.14	3 (2%) 54 64	19, 31, 43, 72	0
15	AO	116/117 (99%)	0.77	16 (13%) 4 5	28, 47, 56, 62	0
15	CO	116/117 (99%)	0.51	15 (12%) 4 6	28, 42, 55, 61	0
15	EO	116/117 (99%)	0.19	8 (6%) 17 20	16, 30, 43, 55	0
15	GO	116/117 (99%)	0.66	17 (14%) 3 5	28, 40, 58, 63	0
16	AP	114/115 (99%)	0.13	3 (2%) 53 63	13, 31, 47, 62	0
16	CP	114/115 (99%)	0.15	5 (4%) 33 40	17, 35, 49, 62	0
16	EP	114/115 (99%)	-0.16	4 (3%) 42 50	6, 24, 43, 66	0
16	GP	114/115 (99%)	0.28	5 (4%) 33 40	14, 35, 50, 59	0
17	AQ	117/118 (99%)	0.07	5 (4%) 34 40	10, 26, 43, 56	0
17	CQ	117/118 (99%)	0.02	3 (2%) 53 63	6, 24, 39, 60	0
17	EQ	117/118 (99%)	-0.18	1 (0%) 81 88	2, 9, 25, 46	0
17	GQ	117/118 (99%)	0.16	4 (3%) 43 51	19, 29, 42, 56	0
18	AR	103/103 (100%)	0.26	5 (4%) 28 34	10, 37, 52, 60	0
18	CR	103/103 (100%)	0.15	3 (2%) 49 58	9, 34, 49, 63	0
18	ER	103/103 (100%)	-0.17	2 (1%) 64 72	2, 21, 41, 52	0
18	GR	103/103 (100%)	0.61	8 (7%) 13 16	13, 40, 53, 63	0
19	AS	110/110 (100%)	0.29	5 (4%) 32 39	13, 28, 45, 62	0
19	CS	110/110 (100%)	0.21	4 (3%) 41 48	7, 27, 45, 65	0
19	ES	110/110 (100%)	-0.03	2 (1%) 65 74	2, 12, 36, 49	0
19	GS	110/110 (100%)	0.65	16 (14%) 3 5	12, 31, 50, 69	0
20	AT	93/100 (93%)	0.82	15 (16%) 2 3	18, 37, 58, 63	0
20	CT	93/100 (93%)	0.57	13 (13%) 3 5	14, 37, 57, 67	0
20	ET	93/100 (93%)	0.53	10 (10%) 6 8	6, 24, 53, 61	0
20	GT	93/100 (93%)	0.87	21 (22%) 1 2	19, 36, 57, 62	0
21	AU	102/104 (98%)	0.88	18 (17%) 2 3	24, 40, 56, 64	0
21	CU	102/104 (98%)	1.04	22 (21%) 1 2	24, 41, 61, 73	0
21	EU	102/104 (98%)	0.51	7 (6%) 17 20	13, 28, 51, 65	0
21	GU	102/104 (98%)	1.54	32 (31%) 1 1	32, 46, 63, 75	0
22	AV	94/94 (100%)	-0.03	2 (2%) 60 69	23, 38, 48, 57	0
22	CV	94/94 (100%)	0.02	2 (2%) 60 69	25, 39, 52, 67	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
22	EV	94/94 (100%)	-0.26	0 100 100	9, 22, 40, 45	0
22	GV	94/94 (100%)	0.36	7 (7%) 14 17	29, 42, 55, 60	0
23	AW	79/85 (92%)	0.68	10 (12%) 4 6	17, 35, 52, 61	0
23	CW	79/85 (92%)	0.51	6 (7%) 14 17	15, 29, 51, 65	0
23	EW	79/85 (92%)	0.42	7 (8%) 10 12	5, 17, 44, 50	0
23	GW	79/85 (92%)	0.63	10 (12%) 4 6	15, 33, 55, 63	0
24	AX	77/78 (98%)	0.57	4 (5%) 26 32	16, 31, 47, 57	0
24	CX	77/78 (98%)	0.20	2 (2%) 53 63	8, 22, 46, 49	0
24	EX	77/78 (98%)	0.17	0 100 100	4, 18, 40, 50	0
24	GX	77/78 (98%)	0.19	2 (2%) 53 63	14, 25, 46, 56	0
25	AY	63/63 (100%)	1.06	11 (17%) 2 3	30, 47, 61, 65	0
25	CY	63/63 (100%)	0.85	10 (15%) 3 4	27, 44, 58, 67	0
25	EY	63/63 (100%)	0.87	11 (17%) 2 3	13, 33, 51, 70	0
25	GY	63/63 (100%)	1.26	12 (19%) 2 2	29, 45, 60, 68	0
26	AZ	58/59 (98%)	0.61	3 (5%) 26 32	15, 31, 55, 71	0
26	CZ	58/59 (98%)	0.43	5 (8%) 11 13	17, 30, 53, 65	0
26	EZ	58/59 (98%)	-0.11	1 (1%) 67 76	2, 10, 35, 59	0
26	GZ	58/59 (98%)	0.41	5 (8%) 11 13	20, 32, 51, 53	0
27	A0	56/57 (98%)	0.42	5 (8%) 10 12	11, 33, 54, 62	0
27	C0	56/57 (98%)	0.23	3 (5%) 25 30	8, 35, 50, 60	0
27	E0	56/57 (98%)	0.12	3 (5%) 25 30	3, 25, 48, 56	0
27	G0	56/57 (98%)	0.30	5 (8%) 10 12	15, 35, 58, 67	0
28	A1	50/55 (90%)	1.21	11 (22%) 1 2	27, 38, 51, 61	0
28	C1	50/55 (90%)	1.07	7 (14%) 3 5	21, 35, 48, 59	0
28	E1	50/55 (90%)	0.65	4 (8%) 12 15	11, 26, 44, 47	0
28	G1	50/55 (90%)	1.37	15 (30%) 1 1	25, 38, 55, 61	0
29	A2	46/46 (100%)	0.26	2 (4%) 34 40	9, 22, 34, 55	0
29	C2	46/46 (100%)	0.11	2 (4%) 34 40	7, 14, 30, 54	0
29	E2	46/46 (100%)	-0.16	1 (2%) 59 67	2, 7, 15, 53	0
29	G2	46/46 (100%)	0.21	2 (4%) 34 40	8, 17, 28, 51	0
30	A3	64/65 (98%)	0.09	0 100 100	12, 22, 37, 40	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
30	C3	64/65 (98%)	0.03	1 (1%) 68 78	10, 18, 27, 35	0
30	E3	64/65 (98%)	-0.07	1 (1%) 68 78	2, 8, 14, 27	0
30	G3	64/65 (98%)	0.26	1 (1%) 68 78	13, 22, 37, 48	0
31	A4	38/38 (100%)	0.23	2 (5%) 25 31	13, 22, 36, 38	0
31	C4	38/38 (100%)	0.28	1 (2%) 53 63	14, 27, 39, 46	0
31	E4	38/38 (100%)	0.01	0 100 100	5, 16, 35, 38	0
31	G4	38/38 (100%)	0.61	4 (10%) 7 9	22, 33, 44, 49	0
32	A5	148/165 (89%)	3.24	85 (57%) 0 0	36, 54, 65, 74	0
32	E5	144/165 (87%)	3.61	103 (71%) 0 0	35, 61, 72, 82	0
33	BA	1533/1542 (99%)	-0.07	35 (2%) 57 66	11, 42, 70, 91	0
33	DA	1533/1542 (99%)	-0.09	33 (2%) 59 67	12, 43, 69, 85	0
33	FA	1533/1542 (99%)	-0.14	30 (1%) 62 71	8, 33, 61, 85	0
33	HA	1533/1542 (99%)	0.01	60 (3%) 37 45	15, 41, 72, 90	0
34	BB	218/241 (90%)	1.52	75 (34%) 1 1	41, 58, 69, 79	0
34	DB	218/241 (90%)	1.71	84 (38%) 1 0	40, 57, 69, 79	0
34	FB	218/241 (90%)	0.77	33 (15%) 3 4	26, 49, 63, 69	0
34	HB	218/241 (90%)	1.15	49 (22%) 1 2	33, 51, 67, 73	0
35	BC	206/233 (88%)	0.73	33 (16%) 3 3	30, 50, 60, 69	0
35	DC	206/233 (88%)	0.48	22 (10%) 6 8	35, 50, 60, 67	0
35	FC	206/233 (88%)	-0.02	4 (1%) 64 72	13, 30, 46, 58	0
35	HC	206/233 (88%)	0.35	13 (6%) 19 23	21, 40, 56, 66	0
36	BD	205/206 (99%)	0.51	24 (11%) 5 7	23, 39, 57, 64	0
36	DD	205/206 (99%)	1.00	38 (18%) 2 3	26, 47, 60, 65	0
36	FD	205/206 (99%)	0.83	36 (17%) 2 3	27, 44, 60, 73	0
36	HD	205/206 (99%)	0.79	28 (13%) 4 5	25, 47, 61, 79	0
37	BE	150/167 (89%)	0.33	14 (9%) 9 11	17, 48, 63, 76	0
37	DE	150/167 (89%)	0.23	8 (5%) 25 31	25, 45, 62, 71	0
37	FE	150/167 (89%)	-0.03	3 (2%) 62 71	18, 34, 50, 65	0
37	HE	150/167 (89%)	0.08	5 (3%) 44 53	21, 37, 54, 67	0
38	BF	100/135 (74%)	1.64	36 (36%) 1 1	50, 62, 70, 74	0
38	DF	100/135 (74%)	0.65	17 (17%) 2 3	32, 49, 62, 69	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
38	FF	100/135 (74%)	0.86	20 (20%) 2 2	32, 51, 63, 66	0
38	HF	100/135 (74%)	0.76	11 (11%) 6 8	31, 51, 64, 71	0
39	BG	151/179 (84%)	0.52	17 (11%) 6 7	28, 49, 60, 66	0
39	DG	151/179 (84%)	0.50	14 (9%) 9 11	32, 46, 58, 63	0
39	FG	151/179 (84%)	0.41	13 (8%) 11 13	23, 39, 55, 63	0
39	HG	151/179 (84%)	0.97	28 (18%) 2 3	32, 48, 62, 68	0
40	BH	129/130 (99%)	0.86	21 (16%) 2 3	40, 51, 62, 70	0
40	DH	129/130 (99%)	0.73	20 (15%) 3 4	28, 47, 59, 73	0
40	FH	129/130 (99%)	0.05	4 (3%) 47 55	20, 32, 47, 66	0
40	HH	129/130 (99%)	0.36	7 (5%) 25 30	23, 35, 51, 69	0
41	BI	127/130 (97%)	1.20	28 (22%) 1 2	24, 52, 65, 70	0
41	DI	127/130 (97%)	1.03	24 (18%) 2 2	31, 52, 64, 74	0
41	FI	127/130 (97%)	0.54	12 (9%) 9 11	14, 43, 60, 69	0
41	HI	127/130 (97%)	1.57	41 (32%) 1 1	29, 55, 70, 75	0
42	BJ	98/103 (95%)	2.23	46 (46%) 1 0	30, 55, 68, 72	0
42	DJ	98/103 (95%)	1.97	41 (41%) 1 0	35, 57, 70, 74	0
42	FJ	98/103 (95%)	0.70	16 (16%) 2 3	14, 32, 59, 65	0
42	HJ	98/103 (95%)	1.54	28 (28%) 1 1	30, 51, 69, 78	0
43	BK	117/129 (90%)	1.54	31 (26%) 1 1	33, 56, 66, 80	0
43	DK	117/129 (90%)	0.36	12 (10%) 7 9	26, 41, 56, 60	0
43	FK	117/129 (90%)	0.50	13 (11%) 6 8	18, 42, 59, 64	0
43	HK	117/129 (90%)	1.62	37 (31%) 1 1	23, 50, 70, 74	0
44	BL	123/124 (99%)	-0.04	4 (3%) 44 53	15, 24, 43, 74	0
44	DL	123/124 (99%)	0.13	7 (5%) 23 28	20, 34, 48, 61	0
44	FL	123/124 (99%)	0.07	7 (5%) 23 28	9, 28, 44, 67	0
44	HL	123/124 (99%)	0.35	11 (8%) 10 12	21, 37, 55, 63	0
45	BM	114/118 (96%)	0.74	18 (15%) 3 4	28, 49, 64, 74	0
45	DM	114/118 (96%)	0.54	12 (10%) 7 9	36, 50, 63, 67	0
45	FM	114/118 (96%)	0.66	16 (14%) 3 5	19, 45, 63, 68	0
45	HM	114/118 (96%)	2.72	64 (56%) 0 0	42, 63, 72, 75	0
46	BN	96/101 (95%)	0.75	15 (15%) 3 4	32, 46, 60, 65	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
46	DN	96/101 (95%)	0.77	17 (17%) 2 3	30, 49, 62, 65	0
46	FN	96/101 (95%)	0.08	3 (3%) 47 55	11, 24, 53, 60	0
46	HN	96/101 (95%)	0.74	19 (19%) 2 2	27, 47, 64, 70	0
47	BO	88/89 (98%)	0.76	12 (13%) 4 5	35, 50, 61, 64	0
47	DO	88/89 (98%)	0.52	9 (10%) 7 9	31, 45, 56, 61	0
47	FO	88/89 (98%)	0.35	2 (2%) 57 66	23, 37, 49, 56	0
47	HO	88/89 (98%)	0.36	7 (7%) 12 15	22, 39, 53, 70	0
48	BP	82/82 (100%)	0.93	12 (14%) 3 5	24, 35, 61, 68	0
48	DP	82/82 (100%)	1.44	24 (29%) 1 1	28, 43, 62, 79	0
48	FP	82/82 (100%)	0.38	6 (7%) 15 18	21, 34, 62, 77	0
48	HP	82/82 (100%)	0.93	12 (14%) 3 5	22, 39, 62, 71	0
49	BQ	80/84 (95%)	0.93	11 (13%) 4 5	30, 45, 55, 63	0
49	DQ	80/84 (95%)	0.83	11 (13%) 4 5	29, 44, 57, 68	0
49	FQ	80/84 (95%)	0.39	3 (3%) 38 45	22, 38, 54, 63	0
49	HQ	80/84 (95%)	0.59	9 (11%) 6 7	27, 41, 51, 57	0
50	BR	55/75 (73%)	1.97	22 (40%) 1 0	46, 55, 66, 69	0
50	DR	55/75 (73%)	0.93	10 (18%) 2 3	35, 44, 60, 66	0
50	FR	55/75 (73%)	0.59	6 (10%) 6 8	35, 44, 53, 61	0
50	HR	55/75 (73%)	0.64	6 (10%) 6 8	26, 40, 55, 64	0
51	BS	79/92 (85%)	0.42	7 (8%) 10 12	30, 44, 59, 64	0
51	DS	79/92 (85%)	0.78	12 (15%) 3 4	36, 49, 63, 67	0
51	FS	79/92 (85%)	-0.01	5 (6%) 19 23	22, 32, 52, 63	0
51	HS	79/92 (85%)	2.97	51 (64%) 0 0	43, 58, 70, 74	0
52	BT	85/87 (97%)	0.74	7 (8%) 12 15	25, 40, 50, 59	0
52	DT	85/87 (97%)	0.82	10 (11%) 5 7	30, 40, 55, 73	0
52	FT	85/87 (97%)	0.45	8 (9%) 9 11	24, 36, 50, 63	0
52	HT	85/87 (97%)	0.94	10 (11%) 5 7	23, 38, 53, 56	0
53	BU	51/71 (71%)	3.93	34 (66%) 0 0	53, 62, 71, 82	0
53	DU	51/71 (71%)	1.87	21 (41%) 1 0	40, 54, 69, 74	0
53	FU	51/71 (71%)	1.84	21 (41%) 1 0	40, 53, 65, 69	0
53	HU	51/71 (71%)	2.62	23 (45%) 1 0	40, 57, 67, 71	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
54	BV	689/704 (97%)	0.48	75 (10%) 6 8	18, 46, 66, 76	0
54	DV	689/704 (97%)	0.66	104 (15%) 3 4	27, 50, 68, 77	0
54	FV	689/704 (97%)	2.89	376 (54%) 0 0	33, 66, 76, 82	0
54	HV	689/704 (97%)	1.14	155 (22%) 1 2	32, 56, 70, 80	0
55	BW	2/6 (33%)	2.82	1 (50%) 0 0	41, 41, 41, 43	2 (100%)
55	DW	2/6 (33%)	2.98	1 (50%) 0 0	40, 40, 40, 44	2 (100%)
55	FW	2/6 (33%)	2.87	1 (50%) 0 0	41, 41, 41, 42	2 (100%)
All	All	43562/44972 (96%)	0.39	4249 (9%) 8 10	1, 37, 66, 92	6 (0%)

All (4249) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
9	GI	8	VAL	21.6
26	AZ	1	ALA	20.6
48	DP	81	ALA	19.9
32	A5	112	ALA	19.2
43	BK	19	GLY	18.2
54	HV	585	ASP	17.5
9	EI	8	VAL	17.0
9	GI	105	LEU	16.4
54	FV	550	ILE	15.9
33	BA	78	A	15.7
54	FV	588	SER	15.0
28	C1	52	LYS	14.8
54	FV	581	GLY	14.8
54	FV	544	VAL	14.3
21	GU	87	GLU	14.1
54	FV	582	SER	14.0
9	GI	56	VAL	13.8
1	EA	2157	G	13.6
51	DS	3	ARG	12.6
43	HK	30	THR	12.5
54	HV	589	SER	12.4
28	A1	52	LYS	12.4
45	HM	2	ALA	12.2
54	FV	543	GLY	12.1
1	EA	2133	G	12.0
32	A5	142	THR	12.0
9	EI	38	CYS	11.8
54	FV	490	TYR	11.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	542	GLY	11.5
54	FV	536	PHE	11.5
32	A5	136	ILE	11.5
48	BP	81	ALA	11.4
6	AF	176	PHE	11.3
32	A5	88	HIS	11.3
51	HS	68	GLY	11.2
9	GI	4	VAL	11.1
9	GI	1	ALA	11.1
32	E5	51	TYR	10.9
41	HI	43	THR	10.9
6	GF	174	PHE	10.8
43	BK	70	CYS	10.7
54	HV	588	SER	10.7
54	FV	553	VAL	10.6
54	FV	369	ASN	10.6
50	BR	20	GLU	10.6
51	HS	30	PRO	10.6
54	FV	185	LEU	10.5
1	GA	2152	G	10.5
54	FV	596	ALA	10.5
54	DV	549	TYR	10.5
54	FV	517	HIS	10.4
9	CI	27	LEU	10.4
48	BP	82	ALA	10.4
54	FV	403	PRO	10.3
54	FV	14	GLY	10.2
32	E5	128	THR	10.2
32	A5	113	PHE	10.2
45	HM	35	ALA	10.0
32	E5	48	ALA	10.0
42	BJ	6	ILE	10.0
8	AH	47	PHE	10.0
53	BU	38	TYR	9.9
32	A5	48	ALA	9.8
42	BJ	76	ILE	9.8
33	DA	86	G	9.8
9	EI	9	LYS	9.8
33	DA	78	A	9.7
39	HG	112	GLY	9.7
9	EI	67	THR	9.6
54	FV	355	ALA	9.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	138	VAL	9.6
32	E5	50	VAL	9.6
54	FV	554	ASP	9.6
9	CI	136	GLY	9.5
54	DV	593	PHE	9.5
52	DT	87	ALA	9.5
54	HV	583	TYR	9.4
42	BJ	36	VAL	9.4
41	FI	130	ARG	9.3
28	G1	52	LYS	9.3
9	CI	1	ALA	9.3
9	AI	4	VAL	9.2
1	AA	2157	G	9.2
9	GI	97	VAL	9.2
9	GI	90	GLY	9.2
54	DV	550	ILE	9.2
54	FV	174	GLY	9.1
54	FV	336	PHE	9.1
9	GI	6	ALA	9.1
54	FV	509	SER	9.1
54	HV	515	TYR	9.1
21	CU	86	PHE	9.1
54	FV	402	ALA	9.0
41	BI	43	THR	9.0
54	FV	87	ILE	9.0
9	EI	7	TYR	9.0
48	FP	81	ALA	9.0
53	BU	29	LEU	9.0
32	E5	88	HIS	9.0
32	A5	84	TYR	8.9
16	AP	1	SER	8.9
32	E5	112	ALA	8.9
32	A5	50	VAL	8.9
51	HS	61	PHE	8.9
54	DV	542	GLY	8.9
32	E5	18	VAL	8.9
54	FV	519	VAL	8.9
1	EA	1175	A	8.8
42	BJ	38	GLY	8.8
6	AF	155	ILE	8.8
32	A5	111	ALA	8.8
9	AI	67	THR	8.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	499	THR	8.8
6	GF	173	ASP	8.7
1	AA	2108	A	8.7
41	BI	130	ARG	8.7
42	DJ	76	ILE	8.7
32	A5	130	PRO	8.7
53	BU	39	GLU	8.7
41	DI	130	ARG	8.7
53	HU	35	ARG	8.6
42	BJ	74	VAL	8.6
54	FV	600	ALA	8.6
54	BV	542	GLY	8.6
1	CA	2180	U	8.6
52	HT	4	ILE	8.6
32	E5	96	PHE	8.6
32	E5	89	PRO	8.5
6	GF	44	ALA	8.5
54	FV	583	TYR	8.5
1	EA	2150	C	8.5
9	GI	29	GLN	8.4
53	BU	32	VAL	8.4
20	GT	16	VAL	8.4
9	CI	7	TYR	8.4
39	HG	5	ARG	8.4
54	HV	37	ASN	8.4
54	FV	105	VAL	8.3
32	A5	46	ARG	8.3
54	FV	202	PHE	8.3
54	BV	541	LYS	8.3
6	GF	45	ASP	8.3
6	AF	168	LEU	8.3
21	GU	51	LEU	8.2
1	AA	1175	A	8.2
6	AF	108	PRO	8.2
54	FV	585	ASP	8.2
32	A5	140	MET	8.2
32	E5	84	TYR	8.2
25	CY	63	ALA	8.1
32	A5	141	ALA	8.1
54	DV	553	VAL	8.1
53	BU	12	PHE	8.1
1	GA	2157	G	8.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	58	ILE	8.1
9	GI	87	SER	8.1
42	HJ	34	ALA	8.0
46	BN	46	LEU	8.0
9	GI	3	LYS	8.0
1	AA	2152	G	8.0
32	E5	116	GLU	8.0
33	FA	1534	A	8.0
32	E5	19	ALA	8.0
1	GA	2103	C	8.0
9	CI	6	ALA	7.9
9	AI	3	LYS	7.9
32	A5	137	ALA	7.9
54	FV	513	GLY	7.9
6	GF	175	PRO	7.9
54	FV	579	HIS	7.9
34	DB	128	LEU	7.9
34	BB	15	PHE	7.8
54	FV	397	LEU	7.8
54	FV	559	GLU	7.8
32	E5	24	SER	7.8
51	HS	47	LEU	7.8
34	HB	8	MET	7.7
9	GI	139	VAL	7.7
6	GF	140	ILE	7.7
54	FV	547	GLY	7.7
54	FV	555	LYS	7.7
6	GF	116	LEU	7.7
54	DV	541	LYS	7.7
42	HJ	29	ALA	7.7
36	HD	194	ASP	7.7
9	CI	90	GLY	7.7
54	BV	511	GLY	7.7
1	AA	1727	C	7.7
1	AA	2140	G	7.7
9	GI	25	PRO	7.7
32	A5	118	ILE	7.7
9	EI	1	ALA	7.6
9	EI	6	ALA	7.6
48	DP	80	LYS	7.6
12	CL	92	LEU	7.6
34	HB	128	LEU	7.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	FD	36	GLN	7.6
6	GF	1	ALA	7.6
9	GI	93	ASN	7.6
1	GA	1175	A	7.6
41	BI	17	ALA	7.6
33	DA	85	U	7.6
54	FV	580	PHE	7.5
32	A5	51	TYR	7.5
54	DV	511	GLY	7.5
32	E5	111	ALA	7.5
1	CA	2141	G	7.5
32	E5	118	ILE	7.5
54	FV	359	ARG	7.5
34	DB	8	MET	7.5
26	CZ	1	ALA	7.5
53	BU	24	GLU	7.5
16	GP	1	SER	7.5
54	FV	508	GLN	7.5
32	A5	61	ARG	7.5
54	BV	593	PHE	7.4
32	E5	49	GLY	7.4
9	EI	10	LEU	7.4
1	AA	2150	C	7.4
43	HK	79	ILE	7.4
40	HH	53	GLY	7.4
45	BM	5	ALA	7.4
6	AF	60	SER	7.4
34	BB	87	ASP	7.4
53	DU	38	TYR	7.4
4	GD	92	VAL	7.4
6	AF	171	ALA	7.4
51	HS	48	THR	7.4
25	EY	63	ALA	7.4
32	A5	24	SER	7.4
32	A5	143	MET	7.4
54	FV	531	PRO	7.4
54	FV	86	ILE	7.4
9	GI	2	LYS	7.4
54	FV	37	ASN	7.3
9	GI	58	ILE	7.3
9	AI	38	CYS	7.3
54	FV	339	TYR	7.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	A5	19	ALA	7.3
53	BU	27	GLY	7.3
54	FV	351	ASN	7.3
6	AF	158	THR	7.3
54	FV	348	THR	7.3
54	FV	518	VAL	7.3
45	HM	75	MET	7.3
54	FV	378	ARG	7.2
54	FV	357	ARG	7.2
1	EA	2151	U	7.2
54	FV	584	HIS	7.2
54	FV	3	ARG	7.2
23	GW	45	HIS	7.2
54	FV	358	GLU	7.2
54	FV	595	LEU	7.2
15	AO	58	ILE	7.2
9	CI	3	LYS	7.1
44	FL	124	ALA	7.1
35	BC	68	ILE	7.1
54	FV	298	ILE	7.1
9	AI	8	VAL	7.1
44	FL	14	ARG	7.1
7	AG	31	GLU	7.1
9	GI	23	VAL	7.1
43	HK	126	LYS	7.1
51	HS	60	VAL	7.1
9	GI	13	ALA	7.1
54	FV	360	PHE	7.1
9	GI	125	THR	7.1
34	DB	87	ASP	7.1
9	EI	90	GLY	7.1
54	FV	548	GLU	7.1
42	DJ	6	ILE	7.1
45	HM	4	ILE	7.1
1	EA	2141	G	7.1
25	GY	63	ALA	7.1
54	FV	353	VAL	7.1
43	HK	107	ILE	7.1
9	AI	1	ALA	7.0
33	BA	86	G	7.0
9	GI	67	THR	7.0
20	AT	16	VAL	7.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	151	PHE	7.0
29	E2	46	LYS	7.0
33	DA	461	A	7.0
6	AF	56	LEU	7.0
9	AI	89	SER	7.0
43	HK	52	PHE	7.0
28	C1	51	ALA	7.0
54	FV	279	LEU	7.0
42	BJ	75	ASP	7.0
54	FV	278	MET	7.0
9	GI	85	ILE	7.0
36	HD	36	GLN	7.0
54	DV	583	TYR	7.0
40	BH	68	GLY	7.0
54	HV	584	HIS	7.0
9	GI	59	THR	7.0
9	AI	2	LYS	7.0
32	A5	139	LEU	6.9
54	FV	219	HIS	6.9
41	HI	130	ARG	6.9
48	HP	81	ALA	6.9
9	EI	137	LEU	6.9
9	EI	4	VAL	6.9
9	GI	57	VAL	6.9
54	FV	208	PRO	6.9
51	HS	69	HIS	6.9
21	GU	31	GLY	6.9
6	AF	64	PRO	6.9
9	GI	21	PRO	6.9
10	GJ	142	ILE	6.9
54	HV	369	ASN	6.9
1	GA	2136	G	6.9
9	CI	5	GLN	6.9
39	HG	110	LYS	6.8
9	GI	41	PHE	6.8
32	A5	89	PRO	6.8
43	HK	127	ARG	6.8
50	BR	29	LEU	6.8
54	HV	541	LYS	6.8
36	HD	28	ILE	6.8
34	BB	73	ARG	6.8
54	FV	551	PRO	6.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	98	GLY	6.8
54	HV	522	MET	6.8
54	FV	200	VAL	6.8
10	GJ	1	MET	6.8
21	AU	87	GLU	6.8
52	BT	87	ALA	6.8
6	AF	145	VAL	6.8
54	FV	498	VAL	6.8
33	BA	82	G	6.8
54	FV	566	LEU	6.8
32	E5	117	LEU	6.8
54	FV	612	LEU	6.8
1	CA	2148	G	6.7
43	BK	53	ARG	6.7
54	DV	580	PHE	6.7
45	HM	80	LEU	6.7
9	GI	69	VAL	6.7
54	FV	183	VAL	6.7
9	AI	20	SER	6.7
48	FP	44	SER	6.7
1	AA	1535	A	6.7
1	EA	2148	G	6.7
21	CU	52	ASN	6.7
45	HM	5	ALA	6.7
54	FV	511	GLY	6.7
6	GF	105	ILE	6.7
9	AI	26	ALA	6.7
54	FV	184	ASP	6.7
54	FV	275	VAL	6.7
9	GI	10	LEU	6.7
40	DH	68	GLY	6.7
1	GA	1870	C	6.6
4	CD	209	ALA	6.6
35	BC	94	ILE	6.6
53	HU	12	PHE	6.6
34	DB	73	ARG	6.6
32	E5	60	LEU	6.6
33	DA	845	A	6.6
42	DJ	98	VAL	6.6
32	A5	131	THR	6.6
54	FV	404	ILE	6.6
54	FV	366	MET	6.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	HU	4	ILE	6.6
54	HV	404	ILE	6.6
1	AA	1728	C	6.6
44	DL	124	ALA	6.6
54	FV	138	ILE	6.6
9	AI	91	LYS	6.6
8	EH	40	THR	6.5
9	EI	19	PRO	6.5
34	BB	8	MET	6.5
36	DD	27	ALA	6.5
33	HA	88	U	6.5
54	HV	587	ASP	6.5
9	AI	90	GLY	6.5
54	FV	567	ALA	6.5
38	BF	47	LEU	6.5
34	BB	17	HIS	6.5
32	E5	68	PRO	6.5
1	EA	2156	G	6.5
1	GA	2102	G	6.5
32	E5	108	VAL	6.5
54	FV	586	VAL	6.5
48	BP	80	LYS	6.5
54	DV	306	PRO	6.5
6	AF	164	GLU	6.5
32	E5	137	ALA	6.5
36	FD	28	ILE	6.5
33	HA	87	C	6.4
36	DD	28	ILE	6.4
54	FV	507	LYS	6.4
9	EI	35	MET	6.4
54	DV	300	ASP	6.4
45	FM	113	ARG	6.4
9	GI	5	GLN	6.4
1	AA	2149	U	6.4
33	HA	1305	G	6.4
34	DB	16	GLY	6.4
23	AW	45	HIS	6.4
1	AA	2107	G	6.4
54	FV	501	VAL	6.4
54	FV	386	ILE	6.4
43	BK	127	ARG	6.4
54	HV	511	GLY	6.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	BU	43	THR	6.4
9	EI	32	VAL	6.3
51	HS	67	VAL	6.3
52	DT	68	HIS	6.3
53	BU	13	ASP	6.3
45	BM	46	SER	6.3
41	BI	44	ALA	6.3
53	BU	47	ARG	6.3
54	FV	587	ASP	6.3
7	CG	47	ASN	6.3
54	HV	397	LEU	6.3
54	FV	534	TYR	6.3
1	CA	2157	G	6.3
42	HJ	30	LYS	6.3
45	HM	71	ARG	6.3
9	AI	9	LYS	6.3
54	FV	541	LYS	6.3
45	HM	36	ALA	6.3
54	HV	549	TYR	6.3
42	BJ	7	ARG	6.3
54	FV	539	ASP	6.3
9	AI	25	PRO	6.2
6	AF	20	ASN	6.2
45	HM	40	ALA	6.2
48	FP	82	ALA	6.2
9	GI	86	LYS	6.2
9	EI	75	ALA	6.2
9	GI	7	TYR	6.2
32	A5	94	ARG	6.2
32	E5	119	PRO	6.2
54	FV	610	PRO	6.2
54	HV	551	PRO	6.2
42	FJ	38	GLY	6.2
9	CI	4	VAL	6.2
9	EI	23	VAL	6.2
32	E5	106	PHE	6.2
9	EI	24	GLY	6.2
9	CI	10	LEU	6.2
6	AF	119	LYS	6.2
54	FV	396	THR	6.2
50	BR	64	TYR	6.1
7	AG	11	PRO	6.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	209	VAL	6.1
50	HR	20	GLU	6.1
54	FV	406	LEU	6.1
9	EI	12	VAL	6.1
54	FV	577	ARG	6.1
32	E5	109	LYS	6.1
21	GU	88	ASP	6.1
9	GI	28	GLY	6.1
1	CA	1175	A	6.1
54	DV	548	GLU	6.1
6	AF	24	VAL	6.1
53	BU	23	CYS	6.1
54	HV	537	ILE	6.1
54	DV	509	SER	6.1
54	FV	410	GLU	6.0
42	BJ	12	ALA	6.0
54	HV	190	ALA	6.0
9	GI	65	SER	6.0
55	DW	4	SER	6.0
32	E5	67	THR	6.0
21	GU	89	GLY	6.0
32	A5	49	GLY	6.0
40	HH	54	ASP	6.0
7	CG	32	LEU	6.0
1	GA	2184	A	6.0
54	FV	574	MET	6.0
53	BU	35	ARG	6.0
9	AI	21	PRO	6.0
9	EI	87	SER	6.0
9	GI	89	SER	6.0
28	E1	52	LYS	6.0
42	DJ	74	VAL	6.0
54	FV	549	TYR	6.0
6	AF	142	TYR	6.0
9	GI	27	LEU	6.0
9	AI	37	PHE	6.0
53	HU	44	GLU	6.0
35	BC	78	GLY	5.9
54	DV	543	GLY	5.9
1	AA	2143	C	5.9
1	CA	2152	G	5.9
1	AA	2106	U	5.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	A1	51	ALA	5.9
43	HK	73	ALA	5.9
45	HM	3	ARG	5.9
1	EA	2109	U	5.9
6	AF	167	ALA	5.9
53	BU	28	VAL	5.9
54	FV	506	ALA	5.9
54	FV	66	ALA	5.9
54	FV	186	VAL	5.9
54	FV	290	VAL	5.9
42	DJ	91	ASP	5.9
9	CI	17	ALA	5.9
15	AO	26	LEU	5.9
34	DB	15	PHE	5.9
32	A5	144	LYS	5.9
54	BV	508	GLN	5.9
6	AF	99	PHE	5.9
7	CG	45	ALA	5.8
9	EI	43	ALA	5.8
39	HG	113	ASP	5.8
45	HM	72	GLU	5.8
32	E5	113	PHE	5.8
6	AF	92	GLY	5.8
1	GA	2153	C	5.8
54	FV	325	ALA	5.8
34	DB	123	GLY	5.8
9	CI	2	LYS	5.8
9	EI	141	ASP	5.8
17	GQ	86	SER	5.8
38	BF	59	TYR	5.8
9	CI	9	LYS	5.8
54	FV	356	ALA	5.8
13	CM	1	MET	5.8
9	EI	56	VAL	5.8
53	HU	21	ARG	5.8
6	AF	61	GLY	5.8
8	GH	49	ALA	5.8
54	FV	381	ASP	5.8
9	AI	92	PRO	5.8
9	CI	59	THR	5.8
9	GI	70	THR	5.8
54	HV	339	TYR	5.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	AH	48	GLU	5.8
53	BU	34	ARG	5.8
53	HU	26	ALA	5.8
54	FV	2	ALA	5.8
1	GA	2138	G	5.8
9	AI	61	TYR	5.7
9	CI	48	ILE	5.7
9	EI	108	ILE	5.7
45	HM	83	LEU	5.7
42	DJ	30	LYS	5.7
20	ET	16	VAL	5.7
32	A5	117	LEU	5.7
15	AO	87	ILE	5.7
6	GF	172	PHE	5.7
43	BK	113	VAL	5.7
44	BL	124	ALA	5.7
55	BW	4	SER	5.7
54	HV	400	PRO	5.7
23	CW	24	ARG	5.7
1	AA	1730	C	5.7
8	CH	12	LEU	5.7
32	E5	23	LEU	5.7
33	FA	845	A	5.7
34	DB	17	HIS	5.7
6	CF	114	ARG	5.7
9	GI	66	PHE	5.7
53	DU	35	ARG	5.7
9	CI	8	VAL	5.7
1	AA	2179	C	5.7
25	EY	62	GLY	5.7
41	BI	129	LYS	5.6
8	CH	44	ILE	5.6
9	EI	40	ALA	5.6
9	GI	92	PRO	5.6
54	DV	506	ALA	5.6
6	AF	177	ARG	5.6
12	GL	92	LEU	5.6
54	FV	502	GLU	5.6
54	FV	603	GLU	5.6
6	AF	17	THR	5.6
9	GI	68	PHE	5.6
33	FA	844	G	5.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	FB	8	MET	5.6
36	DD	118	VAL	5.6
32	A5	14	GLU	5.6
33	DA	1534	A	5.6
54	FV	244	THR	5.6
53	BU	15	ALA	5.6
32	E5	20	LYS	5.6
54	FV	232	GLU	5.6
9	GI	30	GLN	5.6
9	AI	48	ILE	5.5
54	FV	171	LEU	5.5
33	FA	841	C	5.5
42	BJ	25	ILE	5.5
23	EW	45	HIS	5.5
9	GI	38	CYS	5.5
21	CU	87	GLU	5.5
45	HM	47	GLU	5.5
1	CA	1870	C	5.5
54	FV	296	ASN	5.5
6	GF	168	LEU	5.5
9	CI	82	ALA	5.5
9	GI	45	THR	5.5
18	ER	50	GLY	5.5
54	FV	68	THR	5.5
32	E5	36	ASP	5.5
36	DD	29	ASP	5.5
42	DJ	5	ARG	5.5
6	AF	175	PRO	5.5
1	GA	1537	G	5.5
32	E5	143	MET	5.5
54	FV	576	ILE	5.5
9	AI	5	GLN	5.5
1	EA	1508	A	5.5
6	AF	7	TYR	5.5
53	HU	43	THR	5.5
43	HK	32	VAL	5.5
9	GI	34	ILE	5.5
33	HA	1534	A	5.5
21	EU	86	PHE	5.5
23	AW	40	ARG	5.5
45	HM	114	LYS	5.5
54	FV	602	LYS	5.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	10	LEU	5.5
9	CI	29	GLN	5.5
1	GA	2137	U	5.5
41	HI	6	TYR	5.5
1	CA	1727	C	5.4
34	DB	152	ASP	5.4
9	CI	40	ALA	5.4
32	E5	141	ALA	5.4
34	DB	132	GLU	5.4
54	FV	203	GLU	5.4
54	FV	405	ILE	5.4
54	HV	536	PHE	5.4
54	BV	543	GLY	5.4
1	CA	2149	U	5.4
54	DV	307	ALA	5.4
32	E5	140	MET	5.4
38	BF	42	TRP	5.4
42	DJ	39	PRO	5.4
53	BU	11	PRO	5.4
54	FV	71	PHE	5.4
9	EI	41	PHE	5.4
41	HI	20	PHE	5.4
54	DV	544	VAL	5.4
54	FV	377	VAL	5.4
53	FU	35	ARG	5.4
45	HM	37	ALA	5.4
41	DI	129	LYS	5.4
52	BT	68	HIS	5.4
32	A5	77	VAL	5.4
33	BA	844	G	5.4
51	BS	27	ASP	5.4
54	BV	580	PHE	5.3
1	CA	2150	C	5.3
53	HU	38	TYR	5.3
28	A1	27	ARG	5.3
25	GY	62	GLY	5.3
54	FV	218	TRP	5.3
34	DB	135	MET	5.3
54	FV	463	GLU	5.3
9	AI	99	LYS	5.3
18	CR	50	GLY	5.3
32	E5	61	ARG	5.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1537	G	5.3
54	FV	85	ASN	5.3
52	FT	3	ASN	5.3
54	FV	512	ARG	5.3
9	AI	22	PRO	5.3
54	FV	210	ASP	5.3
6	AF	31	GLU	5.3
23	CW	40	ARG	5.3
6	AF	104	THR	5.3
33	DA	84	U	5.3
32	E5	130	PRO	5.3
33	HA	82	G	5.3
34	FB	17	HIS	5.3
54	BV	510	GLY	5.3
54	BV	530	ASN	5.3
9	GI	131	THR	5.3
33	HA	845	A	5.3
9	EI	21	PRO	5.3
1	AA	1537	G	5.3
54	FV	258	ASN	5.3
54	FV	263	LEU	5.3
6	AF	83	PRO	5.3
6	GF	108	PRO	5.3
32	A5	67	THR	5.3
9	GI	24	GLY	5.2
54	FV	204	TYR	5.2
34	BB	56	LEU	5.2
48	DP	82	ALA	5.2
54	BV	585	ASP	5.2
21	EU	87	GLU	5.2
6	AF	82	TYR	5.2
1	AA	2134	A	5.2
54	FV	233	LEU	5.2
54	FV	435	LEU	5.2
9	AI	85	ILE	5.2
29	C2	46	LYS	5.2
6	GF	30	VAL	5.2
9	EI	47	SER	5.2
32	A5	56	ARG	5.2
54	FV	319	ALA	5.2
41	DI	43	THR	5.2
9	EI	37	PHE	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	HK	82	LEU	5.2
54	HV	593	PHE	5.2
9	CI	91	LYS	5.2
4	AD	209	ALA	5.2
34	HB	87	ASP	5.2
42	BJ	29	ALA	5.2
45	HM	58	ASP	5.2
6	AF	107	VAL	5.2
27	A0	26	SER	5.2
21	AU	51	LEU	5.2
34	DB	68	PHE	5.2
53	BU	44	GLU	5.2
53	BU	33	ARG	5.2
42	DJ	8	ILE	5.2
9	GI	62	ALA	5.2
34	HB	131	LYS	5.2
54	FV	172	ALA	5.2
54	DV	519	VAL	5.2
19	GS	110	ARG	5.2
1	GA	2108	A	5.2
54	FV	516	GLY	5.2
41	BI	16	ALA	5.2
33	BA	79	G	5.1
32	E5	47	GLU	5.1
9	AI	82	ALA	5.1
54	HV	264	VAL	5.1
9	CI	52	LEU	5.1
54	BV	517	HIS	5.1
54	BV	298	ILE	5.1
1	AA	896	A	5.1
43	BK	126	LYS	5.1
8	EH	49	ALA	5.1
17	GQ	87	VAL	5.1
9	GI	52	LEU	5.1
42	BJ	73	LEU	5.1
42	FJ	90	LEU	5.1
43	DK	52	PHE	5.1
8	EH	48	GLU	5.1
54	FV	480	GLU	5.1
45	FM	114	LYS	5.1
1	EA	1535	A	5.1
1	GA	2183	A	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	A5	96	PHE	5.1
33	BA	845	A	5.1
48	BP	47	GLU	5.1
28	G1	27	ARG	5.1
14	GN	120	GLU	5.1
9	GI	31	GLY	5.1
6	AF	59	ILE	5.1
33	BA	83	C	5.1
54	FV	458	ILE	5.1
9	EI	97	VAL	5.1
34	DB	205	ALA	5.1
42	BJ	77	VAL	5.1
54	DV	581	GLY	5.1
54	DV	584	HIS	5.1
54	FV	13	ILE	5.1
1	GA	1536	C	5.1
9	GI	140	GLU	5.1
21	GU	52	ASN	5.1
7	EG	42	VAL	5.1
1	AA	2133	G	5.1
33	HA	86	G	5.1
34	BB	99	MET	5.1
54	BV	339	TYR	5.1
53	BU	40	LYS	5.1
39	FG	5	ARG	5.1
6	AF	88	VAL	5.1
32	E5	54	VAL	5.1
1	CA	896	A	5.0
1	AA	2151	U	5.0
45	HM	51	GLY	5.0
51	DS	27	ASP	5.0
1	GA	2107	G	5.0
42	HJ	73	LEU	5.0
42	HJ	74	VAL	5.0
49	FQ	4	LYS	5.0
6	AF	131	VAL	5.0
43	HK	102	ALA	5.0
54	FV	276	GLN	5.0
51	HS	31	LEU	5.0
34	DB	124	THR	5.0
41	HI	44	ALA	5.0
54	BV	583	TYR	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	515	TYR	5.0
54	FV	510	GLY	5.0
51	HS	3	ARG	5.0
9	EI	3	LYS	5.0
32	E5	127	ALA	5.0
51	HS	66	MET	5.0
9	GI	94	LYS	5.0
5	AE	11	ALA	5.0
28	G1	51	ALA	5.0
33	HA	1533	C	5.0
6	AF	102	LEU	5.0
42	HJ	87	LEU	5.0
41	HI	90	TYR	5.0
53	BU	37	PHE	5.0
54	FV	270	PHE	5.0
7	CG	175	LYS	5.0
48	DP	19	VAL	5.0
1	AA	2180	U	5.0
1	AA	2145	C	5.0
1	GA	2146	C	5.0
9	CI	35	MET	5.0
41	HI	63	LEU	5.0
7	GG	44	HIS	4.9
45	HM	46	SER	4.9
51	HS	40	ILE	4.9
34	BB	36	LYS	4.9
33	HA	80	A	4.9
32	E5	99	PHE	4.9
45	BM	114	LYS	4.9
54	FV	297	GLY	4.9
32	A5	147	SER	4.9
48	HP	37	GLY	4.9
53	FU	47	ARG	4.9
9	GI	141	ASP	4.9
45	FM	7	ILE	4.9
34	BB	16	GLY	4.9
36	HD	149	ALA	4.9
7	GG	43	LYS	4.9
32	A5	116	GLU	4.9
51	HS	33	THR	4.9
1	AA	2147	A	4.9
42	BJ	40	ILE	4.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	HM	39	ILE	4.9
1	CA	2106	U	4.9
54	BV	512	ARG	4.9
37	DE	123	VAL	4.9
38	BF	52	ASN	4.9
41	HI	4	ASN	4.9
24	AX	70	LEU	4.9
43	HK	51	GLY	4.9
9	GI	119	ALA	4.9
54	FV	367	HIS	4.9
39	DG	5	ARG	4.9
45	BM	115	PRO	4.9
54	DV	551	PRO	4.9
35	HC	87	LEU	4.9
42	DJ	75	ASP	4.9
53	BU	31	GLU	4.9
26	EZ	1	ALA	4.9
54	FV	593	PHE	4.9
9	GI	124	MET	4.9
48	FP	80	LYS	4.9
53	DU	49	LYS	4.9
1	AA	1726	C	4.9
9	EI	70	THR	4.9
9	GI	12	VAL	4.9
9	GI	32	VAL	4.9
20	GT	76	ARG	4.9
9	CI	37	PHE	4.9
41	HI	32	GLN	4.9
1	CA	2151	U	4.9
33	HA	89	U	4.9
12	GL	10	GLU	4.8
33	HA	747	A	4.8
40	DH	55	THR	4.8
43	BK	82	LEU	4.8
54	DV	539	ASP	4.8
54	FV	181	GLY	4.8
33	HA	1286	U	4.8
33	HA	1453	G	4.8
19	GS	11	ARG	4.8
7	EG	175	LYS	4.8
41	DI	4	ASN	4.8
42	BJ	44	THR	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	31	PHE	4.8
54	FV	522	MET	4.8
19	AS	110	ARG	4.8
54	FV	561	LEU	4.8
1	CA	2133	G	4.8
9	GI	132	ALA	4.8
51	HS	59	PRO	4.8
1	GA	2143	C	4.8
38	BF	41	ASP	4.8
32	E5	46	ARG	4.8
54	HV	552	ALA	4.8
6	AF	95	MET	4.8
9	AI	19	PRO	4.8
54	FV	267	GLY	4.8
8	GH	18	GLN	4.8
35	BC	93	ASP	4.8
49	FQ	83	VAL	4.8
32	A5	31	ARG	4.8
54	BV	509	SER	4.8
54	DV	582	SER	4.8
32	E5	79	PRO	4.8
4	ED	92	VAL	4.8
35	BC	103	ILE	4.8
54	BV	544	VAL	4.8
51	HS	29	LYS	4.8
6	GF	99	PHE	4.8
43	DK	127	ARG	4.8
1	AA	1870	C	4.8
34	DB	36	LYS	4.8
9	EI	138	VAL	4.7
42	BJ	98	VAL	4.7
45	HM	85	CYS	4.7
6	AF	160	LYS	4.7
54	HV	548	GLU	4.7
54	FV	545	ILE	4.7
54	FV	571	VAL	4.7
7	GG	45	ALA	4.7
9	CI	25	PRO	4.7
43	BK	129	VAL	4.7
43	HK	61	PHE	4.7
54	FV	523	TYR	4.7
54	FV	12	ASN	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	110	ARG	4.7
36	DD	117	LEU	4.7
32	A5	52	MET	4.7
1	CA	2134	A	4.7
9	CI	100	ILE	4.7
32	A5	27	VAL	4.7
32	E5	27	VAL	4.7
53	DU	47	ARG	4.7
54	DV	510	GLY	4.7
36	DD	23	SER	4.7
43	HK	80	LYS	4.7
50	BR	47	THR	4.7
42	BJ	37	ARG	4.7
53	HU	47	ARG	4.7
6	AF	62	GLN	4.7
1	CA	1728	C	4.7
1	EA	2140	G	4.7
18	AR	103	ALA	4.7
43	HK	50	SER	4.7
54	FV	175	ALA	4.7
9	EI	53	PRO	4.7
9	CI	67	THR	4.7
9	AI	60	VAL	4.7
1	EA	2143	C	4.7
6	AF	163	GLU	4.7
1	EA	2149	U	4.7
41	HI	21	ILE	4.7
54	FV	495	ARG	4.7
27	A0	56	LYS	4.7
34	HB	127	LYS	4.7
54	BV	553	VAL	4.7
9	EI	52	LEU	4.7
21	GU	59	GLU	4.7
42	HJ	81	GLU	4.7
38	HF	80	PHE	4.7
1	AA	2146	C	4.7
36	DD	130	VAL	4.7
45	HM	43	VAL	4.7
39	HG	85	TYR	4.7
50	BR	70	TYR	4.7
53	FU	38	TYR	4.7
6	GF	106	ALA	4.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	191	ILE	4.6
53	HU	28	VAL	4.6
1	GA	1727	C	4.6
6	GF	109	ARG	4.6
9	CI	66	PHE	4.6
34	DB	163	ILE	4.6
34	BB	224	ARG	4.6
33	DA	841	C	4.6
9	CI	26	ALA	4.6
32	A5	54	VAL	4.6
39	HG	114	LYS	4.6
9	GI	108	ILE	4.6
52	DT	4	ILE	4.6
1	GA	2140	G	4.6
1	EA	896	A	4.6
54	HV	301	ASP	4.6
38	FF	17	GLN	4.6
54	FV	163	GLY	4.6
6	GF	43	ILE	4.6
15	GO	26	LEU	4.6
6	AF	22	ASN	4.6
9	GI	42	ASN	4.6
6	EF	111	ARG	4.6
42	BJ	72	ARG	4.6
1	CA	2147	A	4.6
45	BM	4	ILE	4.6
9	CI	137	LEU	4.6
20	ET	93	LEU	4.6
48	HP	36	VAL	4.6
39	DG	62	PHE	4.6
53	DU	4	ILE	4.6
33	FA	86	G	4.6
54	DV	360	PHE	4.6
9	EI	26	ALA	4.5
54	FV	368	ALA	4.5
54	FV	400	PRO	4.5
53	FU	31	GLU	4.5
53	HU	10	GLU	4.5
1	CA	1726	C	4.5
33	DA	83	C	4.5
8	AH	4	ILE	4.5
6	AF	118	ALA	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	20	SER	4.5
33	BA	85	U	4.5
53	BU	19	PHE	4.5
54	FV	15	ILE	4.5
35	BC	87	LEU	4.5
34	BB	91	VAL	4.5
39	DG	79	ARG	4.5
53	DU	32	VAL	4.5
29	A2	46	LYS	4.5
51	HS	46	GLY	4.5
54	FV	666	TYR	4.5
54	FV	374	ILE	4.5
38	BF	66	ALA	4.5
54	BV	306	PRO	4.5
1	CA	2109	U	4.5
35	BC	42	TYR	4.5
8	GH	44	ILE	4.5
9	AI	27	LEU	4.5
41	HI	80	ARG	4.5
42	DJ	87	LEU	4.5
51	HS	28	LYS	4.5
54	FV	230	SER	4.5
9	CI	69	VAL	4.5
32	A5	106	PHE	4.5
53	BU	9	ASN	4.5
9	GI	137	LEU	4.5
34	HB	163	ILE	4.5
4	ED	209	ALA	4.5
9	CI	47	SER	4.5
32	A5	146	ALA	4.5
32	E5	134	GLU	4.5
1	EA	2134	A	4.5
32	E5	69	PHE	4.5
36	HD	29	ASP	4.5
6	GF	21	TYR	4.5
38	DF	36	ILE	4.5
49	BQ	5	ILE	4.5
54	HV	295	ILE	4.5
34	HB	129	THR	4.5
39	HG	87	VAL	4.5
53	DU	28	VAL	4.5
54	FV	231	GLU	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	81	LYS	4.5
48	HP	80	LYS	4.5
54	FV	300	ASP	4.5
1	AA	2183	A	4.5
32	A5	60	LEU	4.5
42	BJ	35	GLN	4.5
9	EI	98	GLY	4.5
21	GU	50	ALA	4.5
34	DB	129	THR	4.5
42	DJ	101	SER	4.5
37	DE	157	ARG	4.4
38	HF	96	VAL	4.5
1	CA	2138	G	4.4
46	FN	21	PHE	4.4
54	FV	521	ASP	4.4
32	E5	14	GLU	4.4
32	A5	95	LEU	4.4
54	HV	358	GLU	4.4
33	DA	844	G	4.4
9	CI	133	ARG	4.4
25	CY	62	GLY	4.4
9	AI	6	ALA	4.4
40	BH	2	SER	4.4
49	HQ	83	VAL	4.4
51	HS	19	VAL	4.4
54	FV	84	ILE	4.4
5	EE	201	ALA	4.4
27	G0	55	ALA	4.4
34	BB	74	ALA	4.4
42	DJ	36	VAL	4.4
54	HV	586	VAL	4.4
9	EI	2	LYS	4.4
54	FV	424	THR	4.4
23	GW	24	ARG	4.4
45	HM	73	ILE	4.4
54	FV	83	ARG	4.4
32	E5	115	GLY	4.4
43	HK	49	GLY	4.4
6	GF	12	VAL	4.4
40	DH	130	ALA	4.4
41	HI	5	GLN	4.4
42	DJ	37	ARG	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	HN	24	ARG	4.4
9	EI	58	ILE	4.4
39	DG	85	TYR	4.4
5	GE	144	GLU	4.4
9	CI	138	VAL	4.4
9	EI	66	PHE	4.4
54	FV	50	MET	4.4
54	FV	505	HIS	4.4
54	FV	407	GLU	4.4
39	FG	109	ARG	4.4
39	HG	111	ARG	4.4
42	DJ	26	VAL	4.4
33	BA	841	C	4.4
46	BN	2	ALA	4.4
46	BN	22	ALA	4.4
53	BU	17	ARG	4.4
54	FV	257	LEU	4.4
32	A5	125	ARG	4.4
53	FU	28	VAL	4.4
9	EI	71	LYS	4.4
1	CA	1174	U	4.4
9	EI	34	ILE	4.3
54	FV	182	VAL	4.3
54	FV	611	VAL	4.3
8	EH	39	ALA	4.3
9	CI	43	ALA	4.3
11	GK	110	GLU	4.3
9	EI	100	ILE	4.3
34	HB	17	HIS	4.3
1	AA	1531	C	4.3
6	GF	20	ASN	4.3
41	FI	90	TYR	4.3
54	BV	581	GLY	4.3
1	GA	896	A	4.3
54	FV	265	THR	4.3
9	GI	79	LEU	4.3
46	DN	46	LEU	4.3
53	FU	33	ARG	4.3
38	BF	36	ILE	4.3
32	E5	142	THR	4.3
49	DQ	74	THR	4.3
54	BV	549	TYR	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
6	GF	93	GLU	4.3
25	AY	2	LYS	4.3
45	HM	34	LEU	4.3
32	E5	25	ALA	4.3
6	AF	89	THR	4.3
7	GG	51	PHE	4.3
40	HH	55	THR	4.3
43	HK	105	PHE	4.3
32	E5	43	LYS	4.3
6	AF	73	VAL	4.3
45	BM	48	LEU	4.3
9	GI	20	SER	4.3
54	BV	307	ALA	4.3
54	BV	589	SER	4.3
33	FA	83	C	4.3
29	G2	46	LYS	4.3
36	DD	36	GLN	4.3
54	FV	497	LYS	4.3
34	BB	212	TYR	4.3
34	FB	124	THR	4.3
34	HB	124	THR	4.3
6	GF	117	SER	4.3
8	AH	49	ALA	4.3
36	FD	27	ALA	4.3
54	FV	139	ALA	4.3
1	GA	2155	U	4.3
14	EN	120	GLU	4.3
8	EH	47	PHE	4.3
53	BU	21	ARG	4.3
16	EP	114	ASN	4.3
54	FV	528	GLY	4.3
32	E5	77	VAL	4.3
34	DB	13	VAL	4.3
37	DE	103	THR	4.3
9	CI	65	SER	4.3
9	GI	14	ALA	4.3
21	CU	23	LYS	4.3
21	CU	49	PRO	4.3
34	BB	114	LYS	4.3
46	HN	26	GLU	4.3
1	GA	892	A	4.3
1	GA	1847	A	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	FA	843	U	4.3
35	BC	169	ARG	4.3
36	DD	11	LEU	4.2
38	HF	54	LEU	4.2
47	BO	87	LEU	4.2
34	DB	114	LYS	4.2
35	BC	89	LYS	4.2
42	HJ	26	VAL	4.2
51	HS	39	THR	4.2
1	AA	2141	G	4.2
32	A5	148	ALA	4.2
45	HM	84	GLY	4.2
32	A5	86	MET	4.2
9	GI	55	PRO	4.2
51	FS	3	ARG	4.2
54	FV	565	PRO	4.2
9	EI	81	LYS	4.2
17	GQ	4	LYS	4.2
53	DU	37	PHE	4.2
54	HV	108	GLY	4.2
18	GR	70	GLU	4.2
42	BJ	26	VAL	4.2
48	BP	36	VAL	4.2
9	AI	65	SER	4.2
33	HA	1452	C	4.2
5	GE	138	LEU	4.2
54	FV	152	LEU	4.2
54	FV	573	ASP	4.2
1	GA	2156	G	4.2
6	GF	6	TYR	4.2
41	BI	90	TYR	4.2
9	AI	16	MET	4.2
9	GI	48	ILE	4.2
41	HI	129	LYS	4.2
44	HL	124	ALA	4.2
46	FN	30	ILE	4.2
54	HV	229	ALA	4.2
54	HV	386	ILE	4.2
55	FW	4	SER	4.2
54	FV	306	PRO	4.2
41	HI	36	GLU	4.2
34	HB	100	LEU	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	GU	35	VAL	4.2
53	BU	25	LYS	4.2
6	AF	16	MET	4.2
35	BC	64	ILE	4.2
38	BF	51	ILE	4.2
54	BV	311	ALA	4.2
54	FV	164	ALA	4.2
54	DV	513	GLY	4.2
54	HV	219	HIS	4.2
24	AX	44	ARG	4.2
1	CA	1730	C	4.2
7	GG	47	ASN	4.2
13	AM	67	VAL	4.2
36	DD	25	VAL	4.2
39	HG	80	VAL	4.2
42	HJ	101	SER	4.2
36	DD	44	ARG	4.2
50	BR	51	TYR	4.2
26	CZ	58	GLU	4.2
6	AF	170	ALA	4.2
35	BC	95	ALA	4.2
53	HU	18	ARG	4.2
42	HJ	71	LEU	4.2
54	FV	609	LYS	4.2
6	AF	173	ASP	4.2
33	HA	1021	A	4.2
41	DI	5	GLN	4.2
34	BB	127	LYS	4.1
46	DN	29	ALA	4.1
46	HN	21	PHE	4.1
20	ET	91	GLN	4.1
9	EI	86	LYS	4.1
37	HE	159	LYS	4.1
20	CT	2	ILE	4.1
28	G1	4	ILE	4.1
43	BK	56	ARG	4.1
54	FV	599	ILE	4.1
32	A5	145	GLU	4.1
9	EI	91	LYS	4.1
49	DQ	4	LYS	4.1
1	CA	1847	A	4.1
53	FU	29	LEU	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
6	GF	139	GLU	4.1
54	HV	532	LYS	4.1
33	DA	87	C	4.1
33	DA	1031	C	4.1
35	BC	101	ILE	4.1
35	DC	68	ILE	4.1
12	GL	27	LEU	4.1
34	BB	152	ASP	4.1
33	DA	412	A	4.1
6	GF	70	ARG	4.1
42	DJ	9	ARG	4.1
42	DJ	72	ARG	4.1
32	E5	131	THR	4.1
1	AA	1724	G	4.1
1	AA	2136	G	4.1
12	EL	90	VAL	4.1
42	DJ	73	LEU	4.1
45	HM	69	LEU	4.1
6	AF	159	ALA	4.1
36	FD	23	SER	4.1
42	BJ	99	GLN	4.1
34	FB	73	ARG	4.1
50	BR	69	PRO	4.1
33	HA	1022	A	4.1
43	DK	51	GLY	4.1
36	FD	25	VAL	4.1
12	GL	82	LEU	4.1
42	DJ	92	LEU	4.1
6	GF	149	ARG	4.1
45	BM	2	ALA	4.1
54	DV	585	ASP	4.1
33	DA	88	U	4.1
15	GO	58	ILE	4.1
21	EU	51	LEU	4.1
41	HI	41	ARG	4.1
54	FV	48	ALA	4.1
54	DV	239	GLY	4.1
6	AF	78	ILE	4.1
34	DB	66	ILE	4.1
42	HJ	36	VAL	4.1
54	DV	37	ASN	4.1
54	HV	382	ILE	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	GL	3	LEU	4.1
54	FV	222	LEU	4.1
9	GI	35	MET	4.1
32	E5	122	GLN	4.1
9	GI	53	PRO	4.1
36	HD	176	GLY	4.0
52	FT	65	GLY	4.0
23	EW	24	ARG	4.0
7	CG	83	THR	4.0
15	GO	27	VAL	4.0
43	BK	31	ILE	4.0
9	CI	94	LYS	4.0
33	HA	413	G	4.0
54	FV	411	PHE	4.0
34	DB	208	ALA	4.0
7	AG	13	GLY	4.0
6	AF	49	LEU	4.0
25	AY	43	LEU	4.0
33	FA	87	C	4.0
37	FE	159	LYS	4.0
39	HG	30	LEU	4.0
34	DB	14	HIS	4.0
34	DB	20	ARG	4.0
9	CI	86	LYS	4.0
51	HS	18	LYS	4.0
20	GT	30	ILE	4.0
32	E5	26	VAL	4.0
35	BC	66	VAL	4.0
42	DJ	25	ILE	4.0
34	BB	50	ASN	4.0
54	FV	211	MET	4.0
7	GG	34	ARG	4.0
32	A5	42	ARG	4.0
54	BV	582	SER	4.0
9	GI	96	LYS	4.0
46	HN	19	LYS	4.0
1	CA	2156	G	4.0
41	BI	37	GLN	4.0
14	AN	120	GLU	4.0
33	HA	412	A	4.0
38	DF	80	PHE	4.0
45	HM	63	PHE	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	42	ASN	4.0
54	FV	401	ASP	4.0
32	E5	31	ARG	4.0
1	GA	1726	C	4.0
32	E5	92	ALA	4.0
9	AI	52	LEU	4.0
34	DB	103	TRP	4.0
42	FJ	35	GLN	4.0
54	BV	603	GLU	4.0
54	FV	560	GLN	4.0
29	C2	1	MET	4.0
38	FF	59	TYR	4.0
46	HN	17	ALA	4.0
1	GA	1172	C	4.0
14	CN	120	GLU	4.0
54	FV	28	GLU	4.0
54	FV	54	GLU	4.0
39	BG	80	VAL	4.0
39	BG	85	TYR	4.0
54	FV	503	GLY	4.0
34	BB	124	THR	4.0
41	FI	43	THR	4.0
53	DU	43	THR	4.0
33	FA	412	A	4.0
54	FV	67	ALA	4.0
51	HS	41	PHE	4.0
41	DI	90	TYR	4.0
6	GF	31	GLU	4.0
9	GI	99	LYS	4.0
34	DB	127	LYS	4.0
9	GI	22	PRO	4.0
33	HA	844	G	3.9
9	AI	139	VAL	3.9
41	FI	55	VAL	3.9
41	HI	55	VAL	3.9
42	DJ	29	ALA	3.9
54	HV	368	ALA	3.9
54	HV	512	ARG	3.9
1	EA	2183	A	3.9
54	FV	327	ASP	3.9
38	BF	9	MET	3.9
50	DR	51	TYR	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	GU	21	ARG	3.9
51	HS	25	SER	3.9
8	GH	47	PHE	3.9
9	GI	60	VAL	3.9
50	BR	43	ARG	3.9
33	DA	82	G	3.9
9	EI	48	ILE	3.9
54	FV	657	GLU	3.9
8	GH	13	GLY	3.9
20	CT	16	VAL	3.9
9	CI	42	ASN	3.9
13	EM	1	MET	3.9
6	AF	65	LEU	3.9
34	BB	128	LEU	3.9
46	BN	48	LEU	3.9
34	BB	31	PHE	3.9
34	HB	15	PHE	3.9
53	HU	37	PHE	3.9
42	FJ	89	ARG	3.9
34	BB	131	LYS	3.9
45	HM	62	LYS	3.9
21	AU	86	PHE	3.9
43	BK	52	PHE	3.9
9	EI	111	THR	3.9
54	FV	295	ILE	3.9
1	EA	2180	U	3.9
1	CA	140	C	3.9
9	GI	49	GLU	3.9
34	DB	42	LEU	3.9
41	HI	64	TYR	3.9
6	AF	91	ARG	3.9
35	DC	101	ILE	3.9
50	BR	33	ILE	3.9
54	FV	302	GLY	3.9
1	CA	2108	A	3.9
9	GI	111	THR	3.9
36	FD	151	LYS	3.9
4	CD	92	VAL	3.9
45	HM	82	ASP	3.9
1	GA	2181	U	3.9
32	E5	75	ALA	3.9
8	CH	21	VAL	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	HV	342	VAL	3.9
6	GF	160	LYS	3.8
42	HJ	31	ARG	3.8
54	DV	515	TYR	3.8
1	EA	1536	C	3.8
54	DV	531	PRO	3.8
54	DV	557	ILE	3.8
35	BC	91	VAL	3.8
48	HP	21	VAL	3.8
9	CI	105	LEU	3.8
45	DM	8	ASN	3.8
45	HM	44	LYS	3.8
51	HS	43	ASN	3.8
54	DV	530	ASN	3.8
52	FT	68	HIS	3.8
46	BN	21	PHE	3.8
41	HI	93	SER	3.8
8	CH	48	GLU	3.8
32	A5	119	PRO	3.8
53	BU	26	ALA	3.8
42	HJ	75	ASP	3.8
45	HM	68	ASP	3.8
6	GF	111	ARG	3.8
9	AI	94	LYS	3.8
12	AL	92	LEU	3.8
54	HV	216	ASN	3.8
32	E5	53	ARG	3.8
1	CA	2153	C	3.8
54	DV	397	LEU	3.8
34	BB	64	GLY	3.8
54	BV	336	PHE	3.8
34	HB	66	ILE	3.8
7	AG	9	VAL	3.8
54	FV	292	VAL	3.8
6	GF	169	LEU	3.8
43	BK	43	GLY	3.8
54	FV	4	THR	3.8
6	GF	4	HIS	3.8
9	CI	41	PHE	3.8
9	CI	38	CYS	3.8
45	HM	77	ILE	3.8
53	HU	51	SER	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	DV	512	ARG	3.8
43	BK	73	ALA	3.8
9	EI	57	VAL	3.8
34	HB	13	VAL	3.8
1	EA	1537	G	3.8
33	DA	80	A	3.8
33	HA	81	A	3.8
35	DC	96	GLY	3.8
44	FL	123	LYS	3.8
9	EI	30	GLN	3.8
43	BK	55	SER	3.8
32	A5	63	ALA	3.8
51	HS	50	ALA	3.8
54	FV	190	ALA	3.8
25	CY	5	GLU	3.8
54	FV	72	TRP	3.8
9	GI	110	GLN	3.8
1	GA	2147	A	3.8
54	BV	584	HIS	3.8
38	BF	25	TYR	3.8
54	FV	598	SER	3.8
36	DD	156	LYS	3.8
54	HV	648	GLU	3.8
34	DB	213	LEU	3.8
43	FK	129	VAL	3.8
6	AF	147	ARG	3.8
38	HF	94	HIS	3.8
42	BJ	22	THR	3.8
1	EA	2602	A	3.7
9	EI	25	PRO	3.7
36	FD	157	ALA	3.7
54	FV	597	ALA	3.7
32	A5	53	ARG	3.7
32	E5	94	ARG	3.7
6	GF	62	GLN	3.7
51	HS	63	THR	3.7
9	EI	65	SER	3.7
9	CI	113	ALA	3.7
12	AL	6	LEU	3.7
42	BJ	71	LEU	3.7
36	BD	25	VAL	3.7
36	DD	143	VAL	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	FJ	77	VAL	3.7
43	HK	19	GLY	3.7
9	GI	11	GLN	3.7
6	AF	19	PHE	3.7
32	A5	69	PHE	3.7
33	HA	213	G	3.7
1	EA	1870	C	3.7
1	GA	846	U	3.7
54	FV	409	MET	3.7
50	HR	64	TYR	3.7
21	AU	70	ALA	3.7
54	DV	610	PRO	3.7
6	AF	148	VAL	3.7
33	FA	461	A	3.7
53	FU	37	PHE	3.7
54	DV	540	ILE	3.7
9	EI	136	GLY	3.7
42	HJ	38	GLY	3.7
34	DB	91	VAL	3.7
34	FB	74	ALA	3.7
6	EF	99	PHE	3.7
42	HJ	27	GLU	3.7
8	CH	20	ASN	3.7
54	DV	587	ASP	3.7
9	GI	51	GLY	3.7
12	GL	95	LEU	3.7
6	CF	148	VAL	3.7
34	HB	220	VAL	3.7
49	BQ	28	PHE	3.7
34	DB	138	ARG	3.7
44	HL	36	ARG	3.7
21	GU	19	GLY	3.7
54	FV	455	GLN	3.7
54	DV	499	THR	3.7
1	AA	140	C	3.7
6	GF	163	GLU	3.7
54	BV	547	GLY	3.7
32	A5	129	LEU	3.7
35	DC	87	LEU	3.7
42	HJ	90	LEU	3.7
1	GA	2154	A	3.7
15	CO	53	THR	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	71	LYS	3.7
20	GT	51	PHE	3.7
54	FV	293	PRO	3.7
43	HK	98	ARG	3.7
1	GA	2150	C	3.7
1	AA	2137	U	3.7
6	CF	173	ASP	3.7
7	GG	23	ILE	3.7
9	GI	128	ILE	3.7
20	CT	91	GLN	3.7
54	HV	651	GLY	3.7
20	CT	93	LEU	3.7
9	AI	81	LYS	3.7
46	BN	19	LYS	3.7
41	DI	41	ARG	3.7
52	DT	24	ARG	3.7
9	EI	22	PRO	3.6
36	HD	181	THR	3.6
38	FF	92	THR	3.6
42	DJ	77	VAL	3.6
54	FV	621	VAL	3.6
40	HH	47	GLU	3.6
54	FV	537	ILE	3.6
9	CI	44	LYS	3.6
29	G2	1	MET	3.6
41	HI	94	LEU	3.6
32	A5	132	TYR	3.6
6	GF	72	SER	3.6
9	GI	101	SER	3.6
54	DV	589	SER	3.6
1	GA	2190	G	3.6
9	CI	32	VAL	3.6
20	GT	57	VAL	3.6
21	EU	50	ALA	3.6
36	FD	143	VAL	3.6
1	CA	613	A	3.6
33	BA	412	A	3.6
6	GF	155	ILE	3.6
38	BF	14	GLN	3.6
7	GG	49	LEU	3.6
43	FK	127	ARG	3.6
54	HV	408	ARG	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	DU	12	PHE	3.6
21	CU	79	ALA	3.6
54	FV	328	PRO	3.6
54	DV	562	LYS	3.6
1	GA	1171	G	3.6
54	HV	547	GLY	3.6
39	BG	109	ARG	3.6
1	GA	1095	A	3.6
9	AI	35	MET	3.6
32	E5	52	MET	3.6
33	HA	1493	A	3.6
4	GD	118	PHE	3.6
8	GH	45	GLU	3.6
15	AO	92	PHE	3.6
38	FF	8	PHE	3.6
54	FV	95	PHE	3.6
54	FV	504	LYS	3.6
6	AF	135	ILE	3.6
8	EH	44	ILE	3.6
9	EI	85	ILE	3.6
1	CA	546	U	3.6
6	AF	18	GLU	3.6
21	GU	90	LYS	3.6
28	G1	34	GLU	3.6
33	HA	1024	G	3.6
6	GF	127	TYR	3.6
34	BB	125	PHE	3.6
50	DR	64	TYR	3.6
16	CP	1	SER	3.6
51	HS	76	PRO	3.6
54	FV	342	VAL	3.6
54	HV	377	VAL	3.6
32	E5	63	ALA	3.6
6	EF	147	ARG	3.6
34	BB	123	GLY	3.6
6	AF	9	ASP	3.6
36	FD	17	THR	3.6
15	CO	87	ILE	3.6
36	HD	19	LEU	3.6
51	HS	27	ASP	3.6
32	A5	114	GLU	3.6
32	E5	40	GLU	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	HA	4	U	3.6
7	GG	42	VAL	3.6
12	AL	116	VAL	3.6
40	HH	68	GLY	3.6
46	HN	29	ALA	3.6
54	FV	30	ILE	3.6
54	HV	650	THR	3.6
6	AF	127	TYR	3.6
9	CI	60	VAL	3.6
6	GF	112	ASP	3.6
7	CG	46	ASP	3.6
8	AH	44	ILE	3.6
15	AO	35	ILE	3.6
36	BD	123	ILE	3.6
36	FD	191	LEU	3.6
45	DM	45	ILE	3.6
9	CI	18	ASN	3.6
9	AI	66	PHE	3.6
33	FA	209	U	3.6
1	GA	140	C	3.6
34	DB	201	GLY	3.6
43	HK	129	VAL	3.6
53	HU	27	GLY	3.6
9	EI	82	ALA	3.6
53	BU	36	GLU	3.6
54	FV	76	ALA	3.6
54	FV	524	PRO	3.6
36	FD	117	LEU	3.6
41	BI	61	LEU	3.6
7	AG	44	HIS	3.5
6	GF	132	ARG	3.5
32	E5	56	ARG	3.5
45	HM	29	ARG	3.5
1	CA	138	U	3.5
1	CA	2137	U	3.5
6	AF	25	MET	3.5
9	EI	44	LYS	3.5
42	BJ	13	PHE	3.5
54	FV	514	GLN	3.5
36	BD	143	VAL	3.5
45	HM	65	VAL	3.5
54	DV	586	VAL	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
38	BF	48	ALA	3.5
42	HJ	85	ASP	3.5
6	AF	84	ILE	3.5
45	FM	39	ILE	3.5
35	HC	107	ARG	3.5
52	HT	68	HIS	3.5
54	BV	360	PHE	3.5
33	BA	1534	A	3.5
50	FR	20	GLU	3.5
53	BU	10	GLU	3.5
7	CG	9	VAL	3.5
43	BK	77	TYR	3.5
54	HV	36	VAL	3.5
34	DB	122	ASP	3.5
42	DJ	93	ALA	3.5
51	HS	5	LEU	3.5
54	BV	531	PRO	3.5
54	FV	552	ALA	3.5
54	HV	597	ALA	3.5
34	BB	59	ILE	3.5
36	DD	132	ILE	3.5
42	FJ	37	ARG	3.5
9	AI	68	PHE	3.5
1	EA	846	U	3.5
36	FD	127	GLY	3.5
53	HU	24	GLU	3.5
54	HV	534	TYR	3.5
25	AY	60	LYS	3.5
45	FM	48	LEU	3.5
40	DH	116	ALA	3.5
54	FV	546	PRO	3.5
1	AA	2797	U	3.5
1	GA	2797	U	3.5
42	DJ	28	THR	3.5
7	GG	32	LEU	3.5
32	E5	12	VAL	3.5
54	BV	507	LYS	3.5
34	HB	42	LEU	3.5
54	FV	264	VAL	3.5
54	HV	200	VAL	3.5
54	HV	566	LEU	3.5
21	CU	11	ILE	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	33	ALA	3.5
46	DN	22	ALA	3.5
51	HS	11	ILE	3.5
25	GY	30	MET	3.5
34	BB	57	ASN	3.5
6	GF	17	THR	3.5
9	EI	64	ARG	3.5
25	AY	23	ARG	3.5
6	GF	131	VAL	3.5
11	EK	35	VAL	3.5
32	A5	18	VAL	3.5
35	DC	42	TYR	3.5
40	BH	121	LEU	3.5
41	HI	61	LEU	3.5
25	GY	5	GLU	3.5
38	BF	29	ILE	3.5
45	FM	115	PRO	3.5
54	DV	404	ILE	3.5
54	FV	229	ALA	3.5
9	GI	50	LYS	3.5
20	CT	51	PHE	3.5
54	FV	645	GLN	3.5
40	BH	120	GLY	3.5
6	AF	36	ASN	3.5
53	DU	33	ARG	3.5
20	GT	87	LEU	3.5
42	DJ	71	LEU	3.5
6	GF	153	ILE	3.5
6	AF	172	PHE	3.5
38	BF	80	PHE	3.5
50	DR	43	ARG	3.5
54	FV	538	ASN	3.5
7	CG	42	VAL	3.5
34	BB	129	THR	3.5
48	DP	78	VAL	3.5
53	FU	32	VAL	3.5
54	FV	126	VAL	3.5
34	BB	225	SER	3.5
54	FV	237	TYR	3.5
53	HU	30	ALA	3.5
34	DB	35	ASN	3.4
21	CU	78	LYS	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DD	98	LEU	3.4
36	DD	151	LYS	3.4
38	BF	56	LYS	3.4
1	GA	1583	A	3.4
6	GF	11	VAL	3.4
33	FA	81	A	3.4
37	BE	103	THR	3.4
54	FV	201	THR	3.4
54	FV	649	VAL	3.4
54	HV	180	THR	3.4
9	AI	58	ILE	3.4
10	EJ	142	ILE	3.4
32	E5	120	ALA	3.4
42	BJ	43	PRO	3.4
43	HK	56	ARG	3.4
45	HM	10	PRO	3.4
1	EA	2146	C	3.4
41	HI	22	LYS	3.4
44	HL	25	GLU	3.4
45	HM	13	LYS	3.4
54	HV	497	LYS	3.4
6	AF	48	LEU	3.4
9	AI	42	ASN	3.4
32	A5	23	LEU	3.4
51	BS	31	LEU	3.4
15	AO	28	VAL	3.4
8	CH	4	ILE	3.4
34	BB	120	SER	3.4
36	FD	170	TRP	3.4
46	BN	24	ARG	3.4
9	EI	31	GLY	3.4
44	HL	123	LYS	3.4
50	DR	74	HIS	3.4
9	GI	16	MET	3.4
12	AL	3	LEU	3.4
34	HB	99	MET	3.4
40	BH	63	LEU	3.4
8	GH	50	ARG	3.4
34	BB	13	VAL	3.4
39	DG	80	VAL	3.4
54	FV	36	VAL	3.4
36	BD	28	ILE	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	HK	31	ILE	3.4
51	HS	49	ILE	3.4
54	FV	261	ILE	3.4
54	FV	393	THR	3.4
1	CA	1869	G	3.4
54	FV	354	LYS	3.4
54	FV	448	TRP	3.4
1	EA	1913	A	3.4
33	HA	1492	A	3.4
20	AT	24	MET	3.4
38	DF	17	GLN	3.4
48	DP	71	VAL	3.4
1	GA	2179	C	3.4
32	E5	121	SER	3.4
42	BJ	28	THR	3.4
36	BD	109	ALA	3.4
44	HL	122	PRO	3.4
54	FV	481	ALA	3.4
6	EF	177	ARG	3.4
54	DV	357	ARG	3.4
54	FV	613	LEU	3.4
54	HV	320	LEU	3.4
6	GF	22	ASN	3.4
45	FM	8	ASN	3.4
38	HF	29	ILE	3.4
49	HQ	26	GLU	3.4
32	E5	132	TYR	3.4
21	AU	50	ALA	3.4
51	HS	22	ALA	3.4
51	HS	78	ARG	3.4
53	FU	36	GLU	3.4
54	BV	369	ASN	3.4
1	CA	2142	A	3.4
54	FV	282	VAL	3.4
36	DD	64	ILE	3.4
39	BG	62	PHE	3.4
51	HS	10	PHE	3.4
54	FV	73	SER	3.4
7	CG	34	ARG	3.4
32	E5	80	THR	3.4
43	BK	66	ALA	3.4
54	FV	628	THR	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	DV	507	LYS	3.4
54	HV	218	TRP	3.4
1	CA	2103	C	3.4
7	GG	36	LEU	3.4
24	GX	70	LEU	3.4
40	BH	54	ASP	3.4
54	FV	195	ASP	3.4
9	GI	15	GLY	3.4
47	BO	11	ILE	3.4
54	HV	520	ILE	3.4
32	A5	99	PHE	3.4
53	FU	7	ARG	3.4
54	HV	580	PHE	3.4
6	AF	8	LYS	3.4
1	GA	1737	G	3.4
54	BV	592	ALA	3.4
46	HN	46	LEU	3.4
35	HC	78	GLY	3.4
54	DV	394	GLY	3.4
6	GF	78	ILE	3.4
9	GI	39	LYS	3.4
12	GL	116	VAL	3.4
25	GY	7	ARG	3.4
34	BB	39	ILE	3.4
35	FC	79	LYS	3.4
48	BP	76	LYS	3.4
54	FV	338	VAL	3.4
54	HV	140	PHE	3.3
15	AO	36	TYR	3.3
8	GH	38	PRO	3.3
34	BB	86	CYS	3.3
1	AA	2184	A	3.3
9	EI	103	ALA	3.3
32	E5	100	ALA	3.3
41	HI	17	ALA	3.3
54	DV	505	HIS	3.3
54	HV	171	LEU	3.3
9	EI	80	LYS	3.3
54	DV	174	GLY	3.3
54	FV	399	ASP	3.3
20	CT	3	ARG	3.3
6	AF	103	ILE	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	HB	31	PHE	3.3
38	BF	4	TYR	3.3
54	FV	79	TYR	3.3
15	CO	106	LEU	3.3
36	FD	122	ALA	3.3
38	BF	94	HIS	3.3
1	CA	1535	A	3.3
36	HD	148	LYS	3.3
6	AF	79	ARG	3.3
54	HV	174	GLY	3.3
34	BB	35	ASN	3.3
54	HV	351	ASN	3.3
41	DI	29	VAL	3.3
32	A5	17	GLU	3.3
33	HA	841	C	3.3
54	HV	582	SER	3.3
35	HC	62	LYS	3.3
36	BD	82	LEU	3.3
54	HV	388	LEU	3.3
7	CG	12	ALA	3.3
36	HD	3	ARG	3.3
36	FD	194	ASP	3.3
9	EI	33	ASN	3.3
33	HA	1167	A	3.3
1	GA	1173	U	3.3
6	AF	93	GLU	3.3
23	CW	84	GLU	3.3
34	DB	185	ILE	3.3
54	FV	140	PHE	3.3
6	AF	161	SER	3.3
43	FK	126	LYS	3.3
20	AT	7	LEU	3.3
1	EA	2152	G	3.3
9	CI	22	PRO	3.3
42	BJ	39	PRO	3.3
32	E5	42	ARG	3.3
54	FV	281	ALA	3.3
1	EA	2153	C	3.3
28	G1	15	GLY	3.3
8	GH	3	VAL	3.3
9	CI	99	LYS	3.3
12	AL	77	ILE	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	BI	68	LYS	3.3
42	FJ	74	VAL	3.3
54	FV	335	PHE	3.3
54	FV	364	VAL	3.3
33	BA	842	U	3.3
1	CA	1913	A	3.3
54	HV	266	CYS	3.3
11	CK	17	ARG	3.3
34	FB	212	TYR	3.3
37	BE	100	SER	3.3
54	FV	162	LEU	3.3
18	GR	103	ALA	3.3
21	GU	62	ALA	3.3
38	FF	94	HIS	3.3
40	DH	54	ASP	3.3
33	BA	1032	G	3.3
54	FV	650	THR	3.3
9	EI	68	PHE	3.3
21	AU	84	PHE	3.3
1	CA	846	U	3.3
1	EA	546	U	3.3
34	BB	42	LEU	3.3
36	FD	154	ARG	3.3
1	GA	1535	A	3.3
23	CW	45	HIS	3.3
33	BA	461	A	3.3
33	DA	1167	A	3.3
28	E1	51	ALA	3.3
35	BC	104	ALA	3.3
43	HK	125	LYS	3.3
51	HS	65	GLU	3.3
36	BD	64	ILE	3.3
54	FV	326	THR	3.3
54	HV	5	THR	3.3
6	GF	124	ARG	3.3
7	GG	10	VAL	3.3
12	GL	120	VAL	3.3
15	EO	49	VAL	3.3
20	ET	3	ARG	3.3
39	BG	5	ARG	3.3
54	HV	182	VAL	3.3
1	CA	1724	G	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	HA	842	U	3.3
54	BV	612	LEU	3.3
6	GF	74	ALA	3.3
17	CQ	117	ALA	3.3
33	HA	461	A	3.3
34	BB	88	GLN	3.3
34	HB	186	VAL	3.3
54	FV	129	GLN	3.3
54	HV	499	THR	3.3
15	EO	115	LEU	3.3
33	FA	842	U	3.3
38	DF	35	LYS	3.3
46	DN	10	GLU	3.3
38	BF	58	HIS	3.3
39	FG	85	TYR	3.3
50	BR	23	TYR	3.3
50	FR	64	TYR	3.3
54	DV	310	HIS	3.3
54	FV	10	TYR	3.3
1	CA	2136	G	3.2
32	E5	104	ALA	3.2
43	FK	25	ALA	3.2
16	GP	19	PHE	3.2
4	AD	92	VAL	3.2
32	A5	20	LYS	3.2
36	DD	45	LYS	3.2
36	HD	156	LYS	3.2
37	DE	120	VAL	3.2
1	EA	139	U	3.2
32	A5	87	GLU	3.2
35	HC	47	LEU	3.2
40	FH	63	LEU	3.2
45	HM	19	LEU	3.2
54	HV	595	LEU	3.2
33	FA	467	U	3.2
34	DB	212	TYR	3.2
43	BK	22	HIS	3.2
38	BF	68	GLN	3.2
54	FV	425	LYS	3.2
9	CI	16	MET	3.2
54	DV	571	VAL	3.2
54	FV	154	VAL	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	641	MET	3.2
21	EU	52	ASN	3.2
1	AA	2139	U	3.2
9	CI	15	GLY	3.2
32	A5	58	THR	3.2
41	BI	54	LEU	3.2
33	FA	85	U	3.2
33	HA	1333	A	3.2
41	BI	26	GLY	3.2
34	HB	73	ARG	3.2
9	EI	13	ALA	3.2
1	AA	1533	C	3.2
33	BA	87	C	3.2
9	EI	69	VAL	3.2
20	GT	92	ASN	3.2
21	GU	10	VAL	3.2
32	E5	95	LEU	3.2
54	HV	333	LEU	3.2
1	AA	2109	U	3.2
1	GA	1725	U	3.2
1	GA	2133	G	3.2
8	CH	8	LYS	3.2
15	GO	63	LYS	3.2
6	AF	55	ASP	3.2
34	BB	38	HIS	3.2
41	FI	38	TYR	3.2
54	FV	80	GLU	3.2
54	FV	487	GLN	3.2
52	DT	67	ILE	3.2
16	GP	113	LEU	3.2
8	EH	11	ASN	3.2
37	BE	123	VAL	3.2
39	HG	81	GLY	3.2
44	FL	18	LYS	3.2
53	BU	45	ARG	3.2
1	AA	546	U	3.2
9	GI	95	ASP	3.2
38	BF	12	PRO	3.2
42	FJ	78	GLU	3.2
43	HK	72	ASP	3.2
54	FV	235	GLU	3.2
54	FV	301	ASP	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	GA	1509	A	3.2
22	GV	91	PHE	3.2
33	HA	1012	A	3.2
54	FV	445	PHE	3.2
34	DB	206	ILE	3.2
42	DJ	40	ILE	3.2
54	BV	550	ILE	3.2
7	CG	167	VAL	3.2
7	GG	9	VAL	3.2
32	E5	73	LYS	3.2
34	DB	94	ARG	3.2
43	BK	128	ARG	3.2
54	DV	574	MET	3.2
9	AI	7	TYR	3.2
34	BB	14	HIS	3.2
48	HP	44	SER	3.2
36	FD	168	PRO	3.2
34	HB	133	ALA	3.2
21	AU	78	LYS	3.2
23	AW	18	LYS	3.2
6	AF	116	LEU	3.2
12	GL	124	GLY	3.2
20	AT	3	ARG	3.2
25	EY	23	ARG	3.2
35	BC	126	ARG	3.2
54	DV	388	LEU	3.2
34	DB	43	GLU	3.2
32	A5	128	THR	3.2
7	GG	26	LYS	3.2
9	GI	19	PRO	3.2
31	C4	15	LYS	3.2
9	AI	40	ALA	3.2
36	HD	2	ALA	3.2
41	DI	17	ALA	3.2
46	DN	2	ALA	3.2
7	AG	23	ILE	3.2
7	EG	49	LEU	3.2
18	GR	50	GLY	3.2
50	BR	44	ILE	3.2
54	BV	171	LEU	3.2
54	HV	540	ILE	3.2
6	GF	148	VAL	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	2183	A	3.2
26	GZ	58	GLU	3.2
54	BV	548	GLU	3.2
54	FV	454	ASN	3.2
8	CH	18	GLN	3.2
50	BR	30	LYS	3.2
5	GE	158	PHE	3.2
54	BV	515	TYR	3.2
5	GE	45	ALA	3.2
5	GE	161	ALA	3.2
42	DJ	10	LEU	3.2
43	BK	51	GLY	3.2
43	HK	23	ILE	3.2
54	DV	385	ALA	3.2
6	CF	49	LEU	3.2
9	GI	36	GLU	3.1
32	A5	134	GLU	3.1
32	E5	107	GLU	3.1
7	AG	14	VAL	3.1
54	HV	353	VAL	3.1
41	DI	49	ARG	3.1
34	HB	165	ALA	3.1
19	GS	105	VAL	3.1
21	GU	27	VAL	3.1
23	AW	50	VAL	3.1
32	E5	64	VAL	3.1
33	BA	90	C	3.1
34	DB	99	MET	3.1
43	DK	126	LYS	3.1
20	CT	92	ASN	3.1
20	ET	92	ASN	3.1
9	CI	141	ASP	3.1
33	BA	80	A	3.1
36	FD	176	GLY	3.1
41	DI	40	GLY	3.1
53	FU	24	GLU	3.1
54	DV	108	GLY	3.1
9	AI	34	ILE	3.1
54	FV	562	LYS	3.1
1	GA	883	G	3.1
21	AU	12	VAL	3.1
51	HS	58	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	FD	70	ARG	3.1
51	HS	32	ARG	3.1
53	DU	34	ARG	3.1
54	DV	508	GLN	3.1
33	HA	1001	C	3.1
1	GA	546	U	3.1
48	HP	38	PHE	3.1
54	FV	189	LYS	3.1
54	FV	318	SER	3.1
42	DJ	102	LEU	3.1
54	FV	389	LYS	3.1
54	HV	594	LYS	3.1
4	GD	119	ALA	3.1
40	BH	130	ALA	3.1
54	FV	449	THR	3.1
32	E5	125	ARG	3.1
20	CT	24	MET	3.1
21	CU	33	VAL	3.1
41	BI	41	ARG	3.1
6	AF	143	ASP	3.1
1	AA	1734	G	3.1
1	CA	2107	G	3.1
54	DV	336	PHE	3.1
54	DV	547	GLY	3.1
54	FV	179	PHE	3.1
54	DV	238	LEU	3.1
9	CI	54	ILE	3.1
39	HG	4	ARG	3.1
54	FV	392	THR	3.1
42	DJ	35	GLN	3.1
48	DP	63	GLN	3.1
38	FF	1	MET	3.1
49	DQ	23	VAL	3.1
54	DV	649	VAL	3.1
54	FV	349	VAL	3.1
9	GI	46	ASP	3.1
18	AR	45	GLU	3.1
42	BJ	91	ASP	3.1
50	HR	72	ASP	3.1
54	HV	399	ASP	3.1
7	GG	13	GLY	3.1
9	CI	31	GLY	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
49	BQ	35	GLY	3.1
33	HA	840	C	3.1
36	HD	154	ARG	3.1
54	BV	3	ARG	3.1
41	HI	16	ALA	3.1
52	FT	87	ALA	3.1
54	DV	596	ALA	3.1
5	AE	187	VAL	3.1
6	GF	63	LYS	3.1
9	CI	11	GLN	3.1
6	EF	141	ASP	3.1
1	CA	2181	U	3.1
1	EA	2137	U	3.1
19	AS	33	LEU	3.1
39	HG	78	ARG	3.1
42	HJ	102	LEU	3.1
43	FK	13	ARG	3.1
44	DL	14	ARG	3.1
9	CI	92	PRO	3.1
6	AF	58	ALA	3.1
22	CV	94	ALA	3.1
28	C1	32	LYS	3.1
45	HM	115	PRO	3.1
21	AU	14	THR	3.1
40	DH	60	GLU	3.1
19	GS	20	VAL	3.1
33	BA	839	C	3.1
25	GY	1	MET	3.1
33	DA	1032	G	3.1
9	AI	51	GLY	3.1
9	EI	15	GLY	3.1
18	CR	44	GLY	3.1
32	A5	45	GLY	3.1
25	EY	7	ARG	3.1
48	BP	52	LEU	3.1
49	BQ	8	LEU	3.1
19	GS	4	ILE	3.1
32	E5	30	SER	3.1
36	FD	153	SER	3.1
50	DR	30	LYS	3.1
54	BV	537	ILE	3.1
54	FV	242	GLU	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	BI	66	THR	3.1
8	EH	34	GLY	3.0
54	FV	604	GLY	3.0
54	HV	543	GLY	3.0
34	DB	29	PHE	3.0
6	EF	48	LEU	3.0
8	EH	12	LEU	3.0
51	HS	15	LEU	3.0
7	CG	140	ILE	3.0
46	DN	30	ILE	3.0
53	BU	51	SER	3.0
54	FV	540	ILE	3.0
1	GA	613	A	3.0
1	GA	2101	A	3.0
9	AI	43	ALA	3.0
9	GI	26	ALA	3.0
33	HA	1362	A	3.0
54	FV	414	PRO	3.0
46	DN	36	ALA	3.0
54	HV	2	ALA	3.0
6	GF	2	LYS	3.0
32	E5	97	LYS	3.0
39	BG	112	GLY	3.0
42	HJ	28	THR	3.0
51	HS	12	ASP	3.0
54	HV	393	THR	3.0
41	HI	39	PHE	3.0
54	DV	601	PHE	3.0
45	HM	56	LEU	3.0
46	HN	48	LEU	3.0
51	BS	5	LEU	3.0
8	GH	48	GLU	3.0
9	EI	29	GLN	3.0
33	HA	1300	G	3.0
36	BD	122	ALA	3.0
40	BH	108	LYS	3.0
41	DI	22	LYS	3.0
46	DN	3	LYS	3.0
54	FV	226	ALA	3.0
5	GE	31	VAL	3.0
28	C1	27	ARG	3.0
54	HV	309	ARG	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	HV	555	LYS	3.0
35	BC	90	VAL	3.0
54	DV	621	VAL	3.0
6	GF	35	LEU	3.0
6	GF	98	PHE	3.0
7	GG	31	GLU	3.0
8	EH	46	PHE	3.0
32	E5	39	THR	3.0
9	EI	78	LEU	3.0
28	G1	10	LEU	3.0
36	BD	21	LEU	3.0
36	DD	136	GLN	3.0
19	GS	103	ILE	3.0
21	CU	16	LYS	3.0
7	AG	12	ALA	3.0
45	BM	113	ARG	3.0
9	AI	31	GLY	3.0
9	CI	56	VAL	3.0
35	BC	96	GLY	3.0
36	HD	25	VAL	3.0
54	BV	586	VAL	3.0
32	E5	58	THR	3.0
33	HA	1020	G	3.0
34	BB	51	GLU	3.0
48	DP	48	GLU	3.0
7	GG	71	LEU	3.0
37	DE	146	ASN	3.0
54	HV	538	ASN	3.0
54	FV	558	GLN	3.0
9	EI	39	LYS	3.0
34	BB	163	ILE	3.0
34	BB	199	ILE	3.0
34	DB	27	LYS	3.0
51	DS	29	LYS	3.0
6	CF	79	ARG	3.0
35	DC	193	TYR	3.0
1	GA	2104	C	3.0
7	AG	42	VAL	3.0
34	BB	148	GLY	3.0
8	CH	17	ASP	3.0
35	BC	151	VAL	3.0
35	DC	151	VAL	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	HJ	24	GLU	3.0
48	HP	47	GLU	3.0
50	DR	20	GLU	3.0
54	FV	500	ASP	3.0
54	HV	590	GLU	3.0
32	E5	3	LEU	3.0
46	BN	16	LEU	3.0
49	HQ	37	PHE	3.0
54	BV	499	THR	3.0
1	AA	2138	G	3.0
45	FM	4	ILE	3.0
23	GW	84	GLU	3.0
25	AY	61	ALA	3.0
41	HI	26	GLY	3.0
54	DV	402	ALA	3.0
9	CI	139	VAL	3.0
21	GU	48	VAL	3.0
32	A5	26	VAL	3.0
38	BF	60	VAL	3.0
43	BK	74	VAL	3.0
54	DV	110	VAL	3.0
54	HV	501	VAL	3.0
13	AM	1	MET	3.0
31	A4	15	LYS	3.0
54	HV	329	PHE	3.0
54	HV	354	LYS	3.0
34	HB	145	ASN	3.0
41	HI	105	THR	3.0
43	BK	33	THR	3.0
53	HU	9	ASN	3.0
6	GF	135	ILE	3.0
42	BJ	8	ILE	3.0
54	FV	494	ILE	3.0
9	CI	89	SER	3.0
33	HA	843	U	3.0
41	DI	89	GLU	3.0
41	HI	42	GLU	3.0
48	DP	44	SER	3.0
54	FV	492	GLU	3.0
1	CA	2184	A	3.0
1	GA	2144	G	3.0
9	GI	9	LYS	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	GL	83	ALA	3.0
19	GS	16	LYS	3.0
47	BO	73	LYS	3.0
6	EF	148	VAL	3.0
7	GG	15	ASP	3.0
23	AW	25	PHE	3.0
34	BB	216	VAL	3.0
36	DD	194	ASP	3.0
45	HM	11	ASP	3.0
54	HV	355	ALA	3.0
35	BC	124	LEU	3.0
45	HM	48	LEU	3.0
38	DF	62	MET	3.0
49	BQ	9	GLN	3.0
54	FV	320	LEU	3.0
54	FV	408	ARG	3.0
46	BN	43	ASN	3.0
1	AA	1536	C	3.0
8	GH	40	THR	3.0
54	FV	262	ILE	3.0
54	HV	396	THR	3.0
32	E5	114	GLU	3.0
53	HU	31	GLU	3.0
1	CA	2139	U	3.0
1	EA	2181	U	3.0
7	EG	174	LYS	3.0
17	CQ	86	SER	3.0
33	BA	701	U	3.0
33	DA	842	U	3.0
52	HT	23	SER	3.0
54	FV	239	GLY	3.0
41	DI	6	TYR	3.0
42	HJ	79	PRO	3.0
7	EG	12	ALA	3.0
9	AI	138	VAL	3.0
9	GI	40	ALA	3.0
10	GJ	94	ALA	3.0
50	HR	32	TYR	3.0
15	EO	28	VAL	3.0
36	FD	182	PHE	3.0
54	FV	605	PHE	3.0
1	AA	1737	G	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
15	AO	112	GLU	3.0
8	EH	4	ILE	3.0
20	GT	15	HIS	3.0
35	DC	79	LYS	3.0
43	HK	33	THR	3.0
50	BR	45	THR	3.0
53	FU	25	LYS	3.0
1	AA	1174	U	2.9
32	E5	85	SER	2.9
21	CU	35	VAL	2.9
21	GU	72	PHE	2.9
25	AY	53	VAL	2.9
34	FB	56	LEU	2.9
36	BD	194	ASP	2.9
50	DR	67	LEU	2.9
54	FV	256	VAL	2.9
54	HV	383	ALA	2.9
1	GA	2135	A	2.9
6	GF	25	MET	2.9
28	A1	32	LYS	2.9
34	BB	151	LYS	2.9
45	HM	66	GLU	2.9
9	GI	100	ILE	2.9
34	BB	30	ILE	2.9
50	DR	45	THR	2.9
33	BA	88	U	2.9
33	HA	208	U	2.9
21	CU	21	ARG	2.9
39	HG	109	ARG	2.9
47	HO	89	ARG	2.9
1	CA	1868	C	2.9
34	HB	212	TYR	2.9
34	HB	103	TRP	2.9
35	BC	62	LYS	2.9
35	BC	79	LYS	2.9
38	BF	96	VAL	2.9
44	DL	25	GLU	2.9
6	GF	16	MET	2.9
34	DB	48	MET	2.9
1	GA	2134	A	2.9
54	FV	158	ILE	2.9
9	EI	88	GLY	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	A5	62	ARG	2.9
45	HM	113	ARG	2.9
54	FV	309	ARG	2.9
33	HA	1023	U	2.9
8	CH	47	PHE	2.9
32	A5	73	LYS	2.9
34	BB	80	LYS	2.9
39	FG	118	LEU	2.9
45	HM	78	LYS	2.9
11	GK	35	VAL	2.9
53	BU	30	ALA	2.9
54	DV	36	VAL	2.9
54	DV	518	VAL	2.9
54	FV	212	VAL	2.9
54	FV	343	VAL	2.9
42	BJ	68	ARG	2.9
43	FK	88	GLY	2.9
9	EI	59	THR	2.9
32	A5	97	LYS	2.9
33	BA	1362	A	2.9
7	GG	104	LEU	2.9
53	HU	36	GLU	2.9
54	FV	58	GLU	2.9
54	FV	614	GLU	2.9
28	A1	30	PRO	2.9
32	E5	76	PHE	2.9
39	DG	151	PHE	2.9
8	EH	9	VAL	2.9
9	GI	43	ALA	2.9
9	GI	114	ALA	2.9
20	ET	58	VAL	2.9
35	DC	71	ALA	2.9
35	FC	151	VAL	2.9
36	HD	4	TYR	2.9
42	FJ	84	VAL	2.9
54	BV	506	ALA	2.9
54	FV	391	VAL	2.9
6	EF	150	GLY	2.9
11	CK	71	ARG	2.9
39	BG	78	ARG	2.9
45	HM	90	ARG	2.9
52	BT	24	ARG	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
16	GP	114	ASN	2.9
45	HM	8	ASN	2.9
54	HV	510	GLY	2.9
25	CY	4	LYS	2.9
33	FA	210	C	2.9
54	FV	606	LYS	2.9
9	AI	107	GLU	2.9
36	BD	163	GLU	2.9
37	HE	10	GLU	2.9
9	CI	70	THR	2.9
33	BA	84	U	2.9
34	BB	147	LEU	2.9
41	HI	103	PHE	2.9
42	BJ	10	LEU	2.9
44	HL	49	LEU	2.9
9	EI	109	ALA	2.9
33	BA	1492	A	2.9
33	FA	1492	A	2.9
34	HB	82	ALA	2.9
38	FF	25	TYR	2.9
43	DK	129	VAL	2.9
54	HV	109	ALA	2.9
6	AF	86	CYS	2.9
6	GF	110	ILE	2.9
26	AZ	6	ILE	2.9
42	FJ	76	ILE	2.9
47	HO	20	ASN	2.9
48	DP	47	GLU	2.9
40	DH	40	LEU	2.9
54	FV	601	PHE	2.9
7	AG	28	LYS	2.9
7	EG	40	VAL	2.9
7	GG	175	LYS	2.9
32	A5	93	ALA	2.9
32	E5	144	LYS	2.9
34	BB	69	VAL	2.9
43	FK	89	PRO	2.9
34	DB	131	LYS	2.9
54	DV	343	VAL	2.9
54	FV	361	GLY	2.9
9	EI	36	GLU	2.9
28	A1	8	ILE	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	FB	150	ILE	2.9
54	DV	576	ILE	2.9
54	HV	241	GLU	2.9
8	AH	18	GLN	2.9
50	HR	31	ASN	2.9
12	GL	84	LYS	2.9
34	FB	15	PHE	2.9
37	BE	31	PHE	2.9
43	DK	58	SER	2.9
48	BP	39	PHE	2.9
54	DV	299	LEU	2.9
7	CG	11	PRO	2.9
54	FV	475	ARG	2.9
9	EI	139	VAL	2.9
13	GM	135	VAL	2.9
32	A5	12	VAL	2.9
6	AF	44	ALA	2.9
33	DA	1002	G	2.9
37	BE	125	ALA	2.9
46	BN	36	ALA	2.9
15	GO	60	GLU	2.9
32	E5	17	GLU	2.9
54	DV	648	GLU	2.9
34	BB	135	MET	2.9
34	BB	66	ILE	2.9
35	BC	75	ILE	2.9
20	GT	91	GLN	2.9
54	FV	365	GLN	2.9
6	GF	13	LYS	2.9
23	GW	40	ARG	2.9
48	DP	38	PHE	2.9
6	AF	23	SER	2.9
6	GF	24	VAL	2.8
19	AS	3	THR	2.8
26	GZ	54	VAL	2.8
34	HB	162	VAL	2.8
32	A5	21	GLY	2.8
32	E5	45	GLY	2.8
34	HB	121	GLN	2.8
50	BR	21	ILE	2.8
7	AG	47	ASN	2.8
53	FU	9	ASN	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	CY	7	ARG	2.8
34	FB	147	LEU	2.8
43	HK	106	ARG	2.8
16	CP	42	PHE	2.8
33	HA	1000	A	2.8
54	FV	206	ASP	2.8
33	FA	121	U	2.8
20	GT	55	VAL	2.8
34	FB	64	GLY	2.8
40	DH	103	VAL	2.8
20	GT	45	ALA	2.8
35	BC	168	TYR	2.8
54	DV	552	ALA	2.8
37	HE	141	ILE	2.8
7	CG	44	HIS	2.8
39	FG	78	ARG	2.8
43	HK	53	ARG	2.8
38	BF	39	LEU	2.8
34	BB	103	TRP	2.8
41	BI	20	PHE	2.8
42	DJ	27	GLU	2.8
54	DV	502	GLU	2.8
54	HV	688	ASP	2.8
1	CA	2602	A	2.8
13	GM	32	GLY	2.8
18	AR	50	GLY	2.8
23	GW	50	VAL	2.8
28	G1	30	PRO	2.8
40	DH	72	VAL	2.8
43	FK	90	GLY	2.8
54	FV	533	GLY	2.8
4	CD	119	ALA	2.8
51	DS	39	THR	2.8
45	HM	79	ARG	2.8
53	FU	45	ARG	2.8
5	CE	147	LEU	2.8
12	CL	144	GLU	2.8
32	A5	40	GLU	2.8
34	HB	122	ASP	2.8
54	BV	590	GLU	2.8
6	AF	46	LYS	2.8
7	CG	13	GLY	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	BA	91	U	2.8
33	FA	208	U	2.8
51	HS	35	SER	2.8
54	BV	513	GLY	2.8
12	GL	122	VAL	2.8
20	AT	55	VAL	2.8
1	AA	1171	G	2.8
6	CF	177	ARG	2.8
9	EI	5	GLN	2.8
36	HD	27	ALA	2.8
43	DK	71	ALA	2.8
48	DP	43	ALA	2.8
48	DP	65	ALA	2.8
54	BV	357	ARG	2.8
54	FV	227	ALA	2.8
34	BB	150	ILE	2.8
43	HK	34	ILE	2.8
6	GF	49	LEU	2.8
17	CQ	4	LYS	2.8
34	BB	161	PHE	2.8
39	BG	151	PHE	2.8
41	HI	31	ASN	2.8
42	FJ	30	LYS	2.8
20	CT	80	TRP	2.8
33	HA	1136	C	2.8
38	FF	42	TRP	2.8
6	AF	80	GLN	2.8
34	DB	69	VAL	2.8
42	HJ	77	VAL	2.8
50	FR	48	ARG	2.8
54	HV	3	ARG	2.8
32	A5	100	ALA	2.8
46	DN	20	TYR	2.8
54	DV	355	ALA	2.8
5	CE	148	ILE	2.8
35	DC	103	ILE	2.8
41	HI	28	ILE	2.8
48	FP	45	GLU	2.8
43	DK	48	GLY	2.8
54	FV	575	GLY	2.8
45	HM	76	SER	2.8
49	HQ	27	ARG	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	GG	16	VAL	2.8
18	GR	96	VAL	2.8
54	HV	546	PRO	2.8
20	GT	83	ALA	2.8
27	C0	56	LYS	2.8
34	FB	127	LYS	2.8
42	BJ	24	GLU	2.8
46	HN	28	LYS	2.8
54	BV	172	ALA	2.8
54	FV	379	ALA	2.8
7	AG	49	LEU	2.8
20	AT	93	LEU	2.8
51	HS	74	PHE	2.8
54	BV	300	ASP	2.8
13	EM	59	ARG	2.8
34	DB	154	GLY	2.8
36	FD	128	ARG	2.8
39	DG	70	ARG	2.8
1	AA	2156	G	2.8
1	AA	1729	U	2.8
33	BA	843	U	2.8
35	HC	108	LYS	2.8
52	HT	53	GLU	2.8
54	FV	247	GLU	2.8
54	HV	544	VAL	2.8
40	FH	28	PRO	2.8
7	CG	23	ILE	2.8
9	CI	85	ILE	2.8
19	GS	43	ALA	2.8
35	BC	57	ILE	2.8
47	DO	78	TYR	2.8
10	CJ	1	MET	2.8
34	HB	153	MET	2.8
35	BC	178	LEU	2.8
34	HB	161	PHE	2.8
38	DF	52	ASN	2.8
43	DK	56	ARG	2.8
54	HV	401	ASP	2.8
6	GF	150	GLY	2.8
47	HO	16	GLY	2.8
1	EA	2135	A	2.8
9	CI	129	GLU	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	CU	59	GLU	2.8
25	GY	2	LYS	2.8
51	BS	29	LYS	2.8
1	GA	1176	U	2.8
19	GS	17	VAL	2.8
38	HF	89	VAL	2.8
54	FV	572	VAL	2.8
45	DM	115	PRO	2.8
54	FV	6	PRO	2.8
1	AA	1538	G	2.8
1	CA	2102	G	2.8
23	CW	48	ALA	2.8
34	DB	59	ILE	2.8
36	DD	114	ALA	2.8
48	BP	4	ILE	2.8
5	CE	157	LEU	2.8
24	CX	48	LEU	2.8
36	FD	171	LEU	2.8
54	HV	385	ALA	2.8
6	CF	99	PHE	2.7
34	HB	68	PHE	2.7
54	HV	411	PHE	2.7
19	AS	70	LYS	2.7
54	FV	594	LYS	2.7
54	HV	334	THR	2.7
44	BL	25	GLU	2.7
34	DB	225	SER	2.7
39	HG	45	SER	2.7
46	BN	45	VAL	2.7
1	AA	1532	A	2.7
1	GA	508	A	2.7
15	GO	64	TYR	2.7
28	C1	4	ILE	2.7
35	DC	168	TYR	2.7
41	HI	79	ILE	2.7
44	DL	122	PRO	2.7
42	FJ	92	LEU	2.7
45	HM	61	ALA	2.7
54	FV	31	LEU	2.7
35	BC	155	GLY	2.7
45	HM	38	GLY	2.7
6	GF	67	THR	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	DU	24	GLU	2.7
1	CA	2143	C	2.7
1	GA	1170	C	2.7
21	AU	82	VAL	2.7
37	BE	85	VAL	2.7
49	DQ	20	SER	2.7
6	AF	13	LYS	2.7
7	AG	18	ILE	2.7
8	GH	35	LYS	2.7
34	DB	207	ARG	2.7
50	DR	26	ILE	2.7
50	FR	26	ILE	2.7
6	AF	21	TYR	2.7
54	DV	490	TYR	2.7
54	HV	279	LEU	2.7
9	GI	113	ALA	2.7
19	GS	10	ALA	2.7
51	DS	34	TRP	2.7
52	BT	63	ALA	2.7
6	CF	141	ASP	2.7
8	CH	45	GLU	2.7
12	GL	144	GLU	2.7
23	AW	14	ASP	2.7
32	E5	133	GLU	2.7
34	FB	49	PHE	2.7
9	CI	46	ASP	2.7
53	FU	27	GLY	2.7
54	FV	462	GLY	2.7
54	HV	533	GLY	2.7
21	GU	18	LYS	2.7
33	FA	92	U	2.7
33	HA	1009	U	2.7
34	FB	76	SER	2.7
36	DD	61	VAL	2.7
53	HU	34	ARG	2.7
10	CJ	142	ILE	2.7
19	GS	35	ILE	2.7
33	HA	207	C	2.7
33	HA	1031	C	2.7
37	BE	105	ILE	2.7
38	BF	21	MET	2.7
39	HG	26	PHE	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	BK	27	PHE	2.7
50	FR	32	TYR	2.7
54	DV	109	ALA	2.7
54	FV	427	ASP	2.7
54	FV	530	ASN	2.7
49	FQ	70	THR	2.7
51	HS	21	LYS	2.7
53	BU	54	LYS	2.7
49	BQ	46	VAL	2.7
1	EA	2155	U	2.7
6	AF	33	ILE	2.7
8	CH	5	LEU	2.7
21	GU	40	LEU	2.7
33	BA	4	U	2.7
51	HS	45	ILE	2.7
54	BV	545	ILE	2.7
1	EA	1538	G	2.7
10	GJ	44	TYR	2.7
34	FB	82	ALA	2.7
45	FM	5	ALA	2.7
51	DS	10	PHE	2.7
54	FV	196	ALA	2.7
9	AI	11	GLN	2.7
32	E5	105	LYS	2.7
34	DB	65	LYS	2.7
41	BI	27	LYS	2.7
8	EH	43	ASN	2.7
21	AU	41	VAL	2.7
1	AA	138	U	2.7
34	HB	150	ILE	2.7
41	BI	15	SER	2.7
42	BJ	67	ILE	2.7
42	BJ	100	ILE	2.7
47	DO	31	LEU	2.7
45	DM	111	GLY	2.7
38	BF	32	ALA	2.7
46	DN	21	PHE	2.7
28	G1	26	LYS	2.7
41	BI	12	ARG	2.7
50	BR	48	ARG	2.7
1	AA	1731	G	2.7
38	BF	16	GLU	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	GD	35	THR	2.7
42	FJ	32	THR	2.7
25	CY	57	LEU	2.7
32	E5	72	LEU	2.7
37	DE	81	LEU	2.7
43	BK	50	SER	2.7
45	BM	56	LEU	2.7
53	DU	29	LEU	2.7
1	CA	1725	U	2.7
1	CA	2182	U	2.7
1	GA	2151	U	2.7
7	EG	98	LYS	2.7
31	A4	16	ILE	2.7
33	DA	208	U	2.7
36	FD	148	LYS	2.7
40	FH	68	GLY	2.7
45	HM	17	ILE	2.7
45	HM	111	GLY	2.7
46	BN	30	ILE	2.7
52	FT	67	ILE	2.7
54	FV	274	GLY	2.7
54	FV	289	PRO	2.7
34	DB	60	ALA	2.7
38	DF	82	ASP	2.7
38	DF	9	MET	2.7
36	DD	163	GLU	2.7
54	FV	260	GLU	2.7
7	CG	28	LYS	2.7
21	EU	92	VAL	2.7
28	G1	9	LYS	2.7
32	E5	37	LYS	2.7
42	DJ	90	LEU	2.7
1	AA	2181	U	2.7
1	GA	894	U	2.7
6	AF	138	PRO	2.7
7	GG	7	PRO	2.7
1	AA	2602	A	2.7
6	GF	8	LYS	2.6
45	FM	56	LEU	2.6
50	BR	65	LEU	2.6
35	BC	55	ILE	2.6
36	FD	101	VAL	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
38	BF	7	VAL	2.6
2	GB	118	C	2.6
7	AG	169	ARG	2.6
19	ES	110	ARG	2.6
54	FV	223	ILE	2.6
54	HV	605	PHE	2.6
6	AF	152	ASP	2.6
42	DJ	79	PRO	2.6
20	AT	5	GLU	2.6
51	FS	27	ASP	2.6
42	BJ	21	ALA	2.6
54	HV	242	GLU	2.6
45	HM	81	MET	2.6
21	CU	90	LYS	2.6
42	BJ	102	LEU	2.6
52	DT	79	LEU	2.6
9	CI	64	ARG	2.6
13	GM	6	ARG	2.6
54	BV	611	VAL	2.6
5	GE	23	PHE	2.6
9	GI	117	THR	2.6
54	DV	588	SER	2.6
1	GA	138	U	2.6
1	GA	2106	U	2.6
6	EF	143	ASP	2.6
25	GY	13	GLU	2.6
43	HK	123	PRO	2.6
54	FV	107	ASP	2.6
5	GE	201	ALA	2.6
20	AT	88	LYS	2.6
33	HA	210	C	2.6
34	DB	74	ALA	2.6
40	DH	119	ALA	2.6
29	A2	1	MET	2.6
8	GH	12	LEU	2.6
9	GI	104	GLN	2.6
21	AU	69	VAL	2.6
28	G1	31	GLU	2.6
34	BB	206	ILE	2.6
37	DE	114	VAL	2.6
42	HJ	78	GLU	2.6
48	BP	19	VAL	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	317	PHE	2.6
54	FV	535	GLU	2.6
1	CA	2155	U	2.6
8	CH	40	THR	2.6
12	EL	7	SER	2.6
33	BA	723	U	2.6
36	HD	110	THR	2.6
42	FJ	91	ASP	2.6
54	FV	471	ASP	2.6
36	DD	32	CYS	2.6
51	HS	14	HIS	2.6
33	DA	839	C	2.6
8	CH	2	GLN	2.6
40	BH	59	LEU	2.6
43	BK	42	LEU	2.6
50	BR	31	ASN	2.6
54	FV	388	LEU	2.6
54	HV	240	GLY	2.6
6	AF	43	ILE	2.6
18	GR	101	ILE	2.6
22	AV	70	ILE	2.6
27	E0	54	ILE	2.6
36	DD	101	VAL	2.6
43	FK	16	VAL	2.6
48	DP	75	ILE	2.6
8	GH	14	SER	2.6
33	BA	702	A	2.6
33	FA	1493	A	2.6
54	HV	360	PHE	2.6
54	HV	664	PHE	2.6
7	GG	79	THR	2.6
32	A5	39	THR	2.6
34	FB	94	ARG	2.6
36	BD	44	ARG	2.6
48	DP	11	ALA	2.6
6	AF	81	GLY	2.6
7	CG	56	GLY	2.6
15	EO	26	LEU	2.6
36	BD	24	GLY	2.6
42	BJ	90	LEU	2.6
42	DJ	33	GLY	2.6
54	HV	152	LEU	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	FA	1533	C	2.6
21	CU	38	ILE	2.6
32	E5	55	VAL	2.6
34	FB	59	ILE	2.6
37	BE	46	VAL	2.6
47	DO	11	ILE	2.6
51	BS	51	VAL	2.6
51	DS	41	PHE	2.6
54	FV	447	VAL	2.6
9	GI	134	SER	2.6
23	AW	29	SER	2.6
54	FV	193	TRP	2.6
1	EA	613	A	2.6
7	CG	50	THR	2.6
9	GI	64	ARG	2.6
20	ET	73	ARG	2.6
33	FA	80	A	2.6
41	BI	119	ARG	2.6
6	CF	82	TYR	2.6
34	BB	33	ALA	2.6
54	FV	75	MET	2.6
5	CE	3	LEU	2.6
6	AF	134	GLN	2.6
21	AU	100	GLU	2.6
46	DN	16	LEU	2.6
54	FV	170	GLN	2.6
54	FV	648	GLU	2.6
6	CF	22	ASN	2.6
9	CI	33	ASN	2.6
43	HK	101	ASN	2.6
6	CF	30	VAL	2.6
6	CF	113	PHE	2.6
48	DP	4	ILE	2.6
54	BV	571	VAL	2.6
53	BU	22	SER	2.6
1	CA	1729	U	2.6
1	EA	2139	U	2.6
4	GD	209	ALA	2.6
10	AJ	44	TYR	2.6
40	BH	115	ALA	2.6
23	GW	6	GLY	2.6
33	HA	1306	A	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DD	19	LEU	2.6
49	DQ	9	GLN	2.6
54	DV	579	HIS	2.6
54	HV	505	HIS	2.6
50	BR	67	LEU	2.6
32	A5	103	ASN	2.6
12	GL	77	ILE	2.6
35	HC	84	VAL	2.6
48	HP	39	PHE	2.6
54	FV	632	ILE	2.6
10	GJ	141	ASP	2.6
15	CO	3	LYS	2.6
20	ET	21	SER	2.6
33	DA	1030	U	2.6
39	BG	2	PRO	2.6
39	BG	103	TRP	2.6
54	HV	622	GLU	2.6
26	GZ	1	ALA	2.6
31	G4	38	GLY	2.6
45	BM	40	ALA	2.6
48	HP	43	ALA	2.6
34	HB	147	LEU	2.6
40	BH	27	MET	2.6
54	DV	48	ALA	2.6
40	DH	121	LEU	2.6
4	CD	118	PHE	2.6
32	E5	103	ASN	2.6
6	CF	78	ILE	2.6
34	BB	136	ARG	2.6
34	FB	142	LYS	2.6
44	FL	15	LYS	2.6
54	DV	371	ARG	2.6
54	FV	77	LYS	2.6
54	FV	693	ASN	2.6
46	BN	31	ILE	2.6
7	GG	75	VAL	2.6
54	FV	88	ASP	2.5
6	AF	120	SER	2.5
1	AA	139	U	2.5
36	FD	4	TYR	2.5
42	BJ	69	THR	2.5
48	BP	11	ALA	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	HV	591	LEU	2.5
1	AA	2104	C	2.5
33	BA	1533	C	2.5
36	HD	47	ARG	2.5
44	HL	54	ARG	2.5
54	HV	362	ARG	2.5
41	HI	65	ILE	2.5
46	HN	30	ILE	2.5
6	AF	27	VAL	2.5
6	AF	141	ASP	2.5
9	EI	46	ASP	2.5
15	AO	46	GLU	2.5
31	G4	17	VAL	2.5
33	HA	1332	A	2.5
40	BH	58	GLU	2.5
54	BV	275	VAL	2.5
54	HV	535	GLU	2.5
1	AA	2182	U	2.5
8	GH	2	GLN	2.5
34	FB	121	GLN	2.5
54	BV	239	GLY	2.5
54	FV	651	GLY	2.5
38	BF	11	HIS	2.5
39	HG	50	LEU	2.5
38	FF	9	MET	2.5
46	DN	47	LYS	2.5
54	DV	339	TYR	2.5
54	HV	33	TYR	2.5
1	EA	140	C	2.5
6	AF	10	GLU	2.5
7	EG	41	GLU	2.5
9	GI	54	ILE	2.5
16	CP	67	GLU	2.5
54	FV	372	GLU	2.5
54	HV	550	ILE	2.5
15	GO	103	VAL	2.5
18	AR	33	VAL	2.5
40	BH	25	VAL	2.5
41	FI	29	VAL	2.5
1	GA	2602	A	2.5
9	CI	87	SER	2.5
32	A5	90	GLY	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	FB	88	GLN	2.5
43	HK	15	GLN	2.5
47	FO	2	SER	2.5
7	EG	11	PRO	2.5
6	AF	132	ARG	2.5
11	AK	49	ARG	2.5
34	FB	100	LEU	2.5
13	AM	136	MET	2.5
20	CT	15	HIS	2.5
31	G4	36	ARG	2.5
45	HM	89	LEU	2.5
54	FV	525	LEU	2.5
6	CF	21	TYR	2.5
13	GM	103	TYR	2.5
25	EY	1	MET	2.5
35	HC	104	ALA	2.5
42	BJ	88	MET	2.5
48	DP	17	TYR	2.5
16	EP	67	GLU	2.5
9	AI	18	ASN	2.5
7	CG	131	VAL	2.5
15	CO	54	VAL	2.5
40	BH	71	VAL	2.5
52	HT	35	VAL	2.5
54	FV	488	VAL	2.5
32	A5	43	LYS	2.5
39	HG	76	LYS	2.5
7	GG	81	GLY	2.5
9	AI	47	SER	2.5
9	GI	118	GLY	2.5
34	BB	149	GLY	2.5
40	DH	123	GLY	2.5
51	HS	26	GLY	2.5
54	FV	696	GLN	2.5
4	CD	186	LEU	2.5
33	HA	93	U	2.5
42	BJ	41	PRO	2.5
41	BI	86	ALA	2.5
46	HN	22	ALA	2.5
6	CF	59	ILE	2.5
21	GU	11	ILE	2.5
34	DB	50	ASN	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DH	36	ILE	2.5
9	CI	30	GLN	2.5
1	GA	361	G	2.5
28	E1	27	ARG	2.5
54	FV	148	GLY	2.5
20	CT	7	LEU	2.5
39	BG	13	LEU	2.5
1	AA	1725	U	2.5
1	EA	138	U	2.5
25	EY	24	GLU	2.5
32	E5	87	GLU	2.5
33	HA	85	U	2.5
38	FF	16	GLU	2.5
41	HI	92	GLU	2.5
54	HV	570	PRO	2.5
54	FV	109	ALA	2.5
54	HV	402	ALA	2.5
54	HV	574	MET	2.5
33	DA	81	A	2.5
8	AH	43	ASN	2.5
8	GH	21	VAL	2.5
28	G1	46	VAL	2.5
35	HC	179	ARG	2.5
52	FT	24	ARG	2.5
7	GG	166	GLU	2.5
36	DD	159	LEU	2.5
39	FG	120	LEU	2.5
54	DV	235	GLU	2.5
54	FV	288	SER	2.5
6	EF	47	LYS	2.5
28	E1	26	LYS	2.5
34	HB	80	LYS	2.5
35	HC	79	LYS	2.5
39	BG	76	LYS	2.5
34	BB	82	ALA	2.5
35	BC	193	TYR	2.5
38	BF	28	ALA	2.5
51	DS	74	PHE	2.5
41	BI	79	ILE	2.5
54	BV	404	ILE	2.5
28	G1	44	GLN	2.5
34	DB	34	ARG	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DJ	69	THR	2.5
45	BM	42	ASP	2.5
54	FV	197	ASP	2.5
54	HV	577	ARG	2.5
7	CG	31	GLU	2.5
9	GI	130	GLY	2.5
25	AY	62	GLY	2.5
26	GZ	56	VAL	2.5
12	EL	10	GLU	2.5
43	BK	54	GLY	2.5
53	FU	10	GLU	2.5
21	AU	40	LEU	2.5
28	G1	32	LYS	2.5
34	HB	84	LEU	2.5
46	HN	12	LYS	2.5
47	BO	66	LEU	2.5
47	DO	4	SER	2.5
54	BV	607	LYS	2.5
54	FV	589	SER	2.5
5	CE	201	ALA	2.5
9	EI	16	MET	2.5
34	HB	217	ALA	2.5
35	DC	104	ALA	2.5
54	HV	335	PHE	2.5
15	CO	98	GLN	2.5
41	DI	28	ILE	2.5
33	HA	1013	G	2.5
54	BV	301	ASP	2.5
15	AO	49	VAL	2.5
34	DB	64	GLY	2.5
41	BI	29	VAL	2.5
50	BR	34	THR	2.5
54	FV	568	GLY	2.5
32	A5	105	LYS	2.5
54	HV	621	VAL	2.5
1	GA	2182	U	2.4
33	HA	84	U	2.4
8	CH	27	ARG	2.4
9	AI	64	ARG	2.4
32	A5	10	ALA	2.4
32	E5	86	MET	2.4
36	DD	162	ALA	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	FM	40	ALA	2.4
54	HV	359	ARG	2.4
26	CZ	47	ILE	2.4
42	HJ	35	GLN	2.4
20	GT	88	LYS	2.4
43	BK	125	LYS	2.4
21	GU	58	VAL	2.4
23	AW	75	ASN	2.4
1	EA	885	C	2.4
34	DB	210	THR	2.4
40	BH	72	VAL	2.4
54	FV	155	VAL	2.4
36	HD	191	LEU	2.4
6	EF	19	PHE	2.4
33	FA	84	U	2.4
5	EE	8	ALA	2.4
17	AQ	4	LYS	2.4
30	E3	64	ALA	2.4
34	DB	63	LYS	2.4
45	FM	2	ALA	2.4
9	GI	88	GLY	2.4
22	AV	32	GLY	2.4
22	GV	70	ILE	2.4
9	CI	97	VAL	2.4
9	EI	77	VAL	2.4
35	DC	84	VAL	2.4
35	HC	39	VAL	2.4
6	GF	48	LEU	2.4
7	CG	132	LEU	2.4
42	BJ	87	LEU	2.4
50	BR	68	LEU	2.4
33	BA	1031	C	2.4
34	BB	138	ARG	2.4
36	FD	32	CYS	2.4
38	BF	44	ARG	2.4
7	CG	7	PRO	2.4
9	GI	112	LYS	2.4
1	GA	1584	U	2.4
5	AE	183	PHE	2.4
18	AR	35	PHE	2.4
38	HF	33	GLU	2.4
40	BH	52	GLU	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
47	HO	45	GLU	2.4
52	BT	31	PHE	2.4
38	FF	68	GLN	2.4
1	AA	1913	A	2.4
46	HN	20	TYR	2.4
52	DT	63	ALA	2.4
53	DU	26	ALA	2.4
6	AF	85	GLY	2.4
20	GT	85	VAL	2.4
32	A5	59	LEU	2.4
37	BE	81	LEU	2.4
41	BI	58	VAL	2.4
8	GH	41	LYS	2.4
28	A1	26	LYS	2.4
34	HB	130	LYS	2.4
5	CE	124	PHE	2.4
15	CO	117	PHE	2.4
20	AT	15	HIS	2.4
36	HD	164	GLN	2.4
53	FU	23	CYS	2.4
54	BV	610	PRO	2.4
54	FV	254	GLN	2.4
4	GD	43	ASP	2.4
6	CF	33	ILE	2.4
6	GF	152	ASP	2.4
10	GJ	81	ILE	2.4
12	EL	11	GLY	2.4
12	GL	100	ILE	2.4
48	DP	37	GLY	2.4
49	DQ	82	ALA	2.4
52	HT	39	ILE	2.4
54	BV	539	ASP	2.4
9	AI	12	VAL	2.4
15	CO	39	VAL	2.4
28	A1	41	VAL	2.4
33	DA	79	G	2.4
39	DG	76	LYS	2.4
40	DH	63	LEU	2.4
54	DV	498	VAL	2.4
36	BD	36	GLN	2.4
47	BO	43	PHE	2.4
1	EA	2796	U	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	EW	73	PRO	2.4
38	DF	34	GLY	2.4
7	GG	58	ALA	2.4
17	GQ	89	ILE	2.4
27	C0	55	ALA	2.4
34	DB	165	ALA	2.4
39	HG	65	ALA	2.4
46	HN	18	ASP	2.4
54	HV	300	ASP	2.4
6	EF	149	ARG	2.4
49	BQ	77	ARG	2.4
54	FV	375	LYS	2.4
54	FV	643	LYS	2.4
8	GH	19	VAL	2.4
34	BB	84	LEU	2.4
54	FV	642	LEU	2.4
39	BG	48	GLU	2.4
54	FV	332	ASN	2.4
16	CP	19	PHE	2.4
34	BB	29	PHE	2.4
42	BJ	49	PHE	2.4
54	FV	684	PHE	2.4
54	HV	73	SER	2.4
1	CA	139	U	2.4
1	EA	2798	U	2.4
1	GA	2149	U	2.4
6	CF	175	PRO	2.4
23	CW	73	PRO	2.4
54	HV	289	PRO	2.4
54	HV	542	GLY	2.4
15	GO	59	ALA	2.4
21	GU	70	ALA	2.4
34	BB	185	ILE	2.4
52	BT	85	LYS	2.4
6	EF	116	LEU	2.4
7	GG	132	LEU	2.4
22	GV	69	GLU	2.4
41	FI	63	LEU	2.4
54	BV	518	VAL	2.4
1	CA	2101	A	2.4
5	AE	10	SER	2.4
5	CE	158	PHE	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
6	AF	68	LYS	2.4
21	GU	86	PHE	2.4
38	BF	8	PHE	2.4
39	FG	110	LYS	2.4
49	DQ	28	PHE	2.4
15	CO	114	GLY	2.4
20	AT	69	ARG	2.4
34	HB	34	ARG	2.4
15	GO	35	ILE	2.4
34	FB	163	ILE	2.4
51	FS	40	ILE	2.4
7	EG	31	GLU	2.4
38	HF	57	ALA	2.4
6	GF	142	TYR	2.4
19	GS	69	LEU	2.4
22	GV	38	LEU	2.4
35	FC	193	TYR	2.4
54	HV	243	LEU	2.4
9	CI	57	VAL	2.4
32	A5	64	VAL	2.4
34	DB	79	VAL	2.4
46	HN	34	VAL	2.4
54	BV	37	ASN	2.4
13	GM	127	LYS	2.4
53	HU	40	LYS	2.4
6	CF	176	PHE	2.4
7	CG	20	GLY	2.4
38	DF	44	ARG	2.4
45	BM	29	ARG	2.4
53	FU	51	SER	2.4
54	BV	309	ARG	2.4
54	FV	35	GLY	2.4
25	EY	16	THR	2.4
37	FE	103	THR	2.4
1	EA	2402	U	2.4
6	CF	155	ILE	2.4
32	A5	36	ASP	2.4
38	DF	71	ILE	2.4
53	DU	36	GLU	2.4
54	HV	191	ILE	2.4
54	HV	576	ILE	2.4
5	AE	12	LEU	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	27	LEU	2.3
15	AO	51	ALA	2.4
27	E0	55	ALA	2.4
43	HK	99	ALA	2.4
35	FC	42	TYR	2.3
36	FD	9	LEU	2.3
54	FV	106	LEU	2.3
54	FV	489	ALA	2.4
14	AN	29	VAL	2.3
34	HB	216	VAL	2.3
35	BC	138	VAL	2.3
39	DG	6	VAL	2.3
39	HG	6	VAL	2.3
9	GI	18	ASN	2.3
38	DF	46	GLN	2.3
54	HV	296	ASN	2.3
36	FD	146	ARG	2.3
41	HI	95	ARG	2.3
20	GT	90	GLY	2.3
36	DD	127	GLY	2.3
43	DK	19	GLY	2.3
10	AJ	9	GLU	2.3
34	DB	93	HIS	2.3
54	DV	517	HIS	2.3
54	HV	579	HIS	2.3
1	AA	846	U	2.3
6	CF	84	ILE	2.3
6	GF	146	ASP	2.3
54	FV	363	ILE	2.3
54	FV	457	ILE	2.3
54	HV	545	ILE	2.3
16	EP	113	LEU	2.3
19	GS	73	LYS	2.3
25	AY	63	ALA	2.3
41	BI	52	LEU	2.3
25	AY	52	ARG	2.3
34	DB	41	ASN	2.3
34	FB	34	ARG	2.3
12	AL	144	GLU	2.3
34	BB	197	PHE	2.3
40	BH	45	PHE	2.3
41	DI	39	PHE	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	HP	16	PHE	2.3
6	GF	64	PRO	2.3
9	AI	100	ILE	2.3
9	EI	128	ILE	2.3
11	EK	115	ILE	2.3
27	E0	56	LYS	2.3
34	BB	40	ILE	2.3
35	BC	196	ILE	2.3
40	BH	55	THR	2.3
42	BJ	79	PRO	2.3
42	DJ	100	ILE	2.3
47	BO	71	LYS	2.3
51	DS	11	ILE	2.3
1	AA	2155	U	2.3
20	ET	80	TRP	2.3
34	DB	96	LEU	2.3
34	DB	156	LEU	2.3
34	FB	134	LEU	2.3
34	FB	211	LEU	2.3
54	BV	52	TRP	2.3
36	HD	37	ALA	2.3
37	BE	99	ALA	2.3
41	DI	16	ALA	2.3
15	GO	28	VAL	2.3
20	GT	3	ARG	2.3
21	EU	53	GLN	2.3
23	EW	40	ARG	2.3
39	FG	79	ARG	2.3
41	BI	64	TYR	2.3
1	EA	2154	A	2.3
36	BD	16	GLY	2.3
54	DV	232	GLU	2.3
9	AI	41	PHE	2.3
30	C3	21	PHE	2.3
54	HV	239	GLY	2.3
36	DD	148	LYS	2.3
40	DH	126	ILE	2.3
45	FM	12	HIS	2.3
49	BQ	72	SER	2.3
23	GW	36	ILE	2.3
30	G3	31	ILE	2.3
3	AC	94	LEU	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	EG	132	LEU	2.3
23	GW	42	THR	2.3
32	E5	129	LEU	2.3
1	GA	2110	G	2.3
34	BB	118	THR	2.3
39	BG	116	MET	2.3
43	FK	30	THR	2.3
46	BN	96	LEU	2.3
47	DO	59	MET	2.3
6	AF	42	ALA	2.3
27	G0	23	ALA	2.3
45	HM	32	ALA	2.3
47	DO	89	ARG	2.3
51	DS	32	ARG	2.3
46	BN	20	TYR	2.3
6	AF	97	GLU	2.3
15	CO	28	VAL	2.3
20	CT	67	VAL	2.3
38	HF	10	VAL	2.3
54	HV	203	GLU	2.3
21	CU	72	PHE	2.3
21	GU	16	LYS	2.3
34	DB	90	PHE	2.3
49	BQ	37	PHE	2.3
1	EA	2211	A	2.3
9	GI	121	ILE	2.3
32	E5	82	ILE	2.3
34	DB	61	SER	2.3
36	FD	144	SER	2.3
45	HM	54	ASP	2.3
53	FU	13	ASP	2.3
54	FV	345	SER	2.3
41	DI	61	LEU	2.3
54	BV	371	ARG	2.3
54	FV	101	ARG	2.3
1	CA	2402	U	2.3
1	GA	2139	U	2.3
6	AF	100	GLU	2.3
34	FB	45	THR	2.3
36	FD	147	GLU	2.3
41	BI	89	GLU	2.3
43	BK	25	ALA	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DM	2	ALA	2.3
46	DN	42	TRP	2.3
54	DV	600	ALA	2.3
54	FV	52	TRP	2.3
54	FV	277	ALA	2.3
8	CH	13	GLY	2.3
9	AI	56	VAL	2.3
15	EO	3	LYS	2.3
44	DL	123	LYS	2.3
37	BE	102	GLY	2.3
37	DE	137	VAL	2.3
4	AD	90	PHE	2.3
33	HA	1131	G	2.3
34	DB	161	PHE	2.3
54	FV	150	ASN	2.3
1	EA	2795	C	2.3
1	GA	1728	C	2.3
33	FA	183	C	2.3
5	AE	153	LEU	2.3
6	EF	135	ILE	2.3
9	GI	47	SER	2.3
11	EK	49	ARG	2.3
12	GL	123	ARG	2.3
20	AT	2	ILE	2.3
39	DG	78	ARG	2.3
48	DP	55	ASP	2.3
52	HT	83	ILE	2.3
53	DU	13	ASP	2.3
54	FV	438	LEU	2.3
45	DM	112	PRO	2.3
1	EA	1173	U	2.3
1	EA	2182	U	2.3
7	CG	17	LYS	2.3
21	GU	78	LYS	2.3
50	BR	24	LYS	2.3
54	FV	241	GLU	2.3
15	AO	82	ALA	2.3
54	FV	27	THR	2.3
34	HB	16	GLY	2.3
36	DD	16	GLY	2.3
41	HI	29	VAL	2.3
48	DP	61	VAL	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	DV	564	GLY	2.3
54	FV	133	TYR	2.3
54	HV	290	VAL	2.3
4	ED	118	PHE	2.3
54	BV	536	PHE	2.3
6	GF	114	ARG	2.3
1	EA	2110	G	2.3
6	AF	110	ILE	2.3
21	CU	71	ILE	2.3
27	G0	38	LEU	2.3
34	HB	86	CYS	2.3
36	BD	23	SER	2.3
38	FF	33	GLU	2.3
38	FF	47	LEU	2.3
51	HS	64	ASP	2.3
54	BV	557	ILE	2.3
54	BV	654	ILE	2.3
54	DV	425	LYS	2.3
42	FJ	79	PRO	2.3
1	EA	1176	U	2.3
22	GV	94	ALA	2.3
33	DA	532	A	2.3
34	DB	155	GLY	2.3
36	HD	175	ALA	2.3
39	HG	39	ALA	2.3
14	CN	29	VAL	2.3
18	ER	47	VAL	2.3
38	DF	42	TRP	2.3
54	HV	79	TYR	2.3
6	AF	137	PHE	2.3
8	GH	29	PHE	2.3
8	EH	20	ASN	2.3
12	EL	123	ARG	2.3
12	GL	69	ARG	2.3
25	AY	7	ARG	2.3
6	GF	41	GLU	2.3
34	DB	142	LYS	2.3
14	CN	83	LEU	2.3
16	GP	101	GLU	2.3
28	C1	9	LYS	2.3
44	DL	18	LYS	2.3
51	FS	29	LYS	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	147	LEU	2.3
38	FF	29	ILE	2.3
38	FF	51	ILE	2.3
42	BJ	42	LEU	2.3
45	HM	33	ILE	2.3
1	AA	2103	C	2.3
1	AA	2402	U	2.3
1	CA	2140	G	2.3
1	CA	2146	C	2.3
1	CA	2189	U	2.3
1	GA	897	C	2.3
33	DA	76	G	2.3
33	HA	1032	G	2.3
38	DF	66	ALA	2.3
41	HI	40	GLY	2.3
17	AQ	78	PHE	2.3
35	DC	76	VAL	2.3
39	HG	79	ARG	2.3
45	HM	20	THR	2.3
47	FO	12	VAL	2.3
51	HS	62	VAL	2.3
54	HV	265	THR	2.3
10	GJ	111	LYS	2.2
33	HA	746	A	2.3
40	HH	56	LYS	2.2
23	EW	84	GLU	2.2
54	DV	369	ASN	2.2
54	DV	603	GLU	2.2
10	AJ	142	ILE	2.2
12	EL	92	LEU	2.2
25	CY	39	GLN	2.2
36	DD	164	GLN	2.2
42	DJ	99	GLN	2.2
43	BK	23	ILE	2.2
49	DQ	21	ILE	2.2
51	BS	71	LEU	2.2
17	AQ	86	SER	2.2
9	CI	98	GLY	2.2
39	DG	112	GLY	2.2
5	GE	169	VAL	2.2
6	CF	7	TYR	2.2
6	EF	73	VAL	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	169	ARG	2.2
8	AH	41	LYS	2.2
27	A0	55	ALA	2.2
32	E5	91	ALA	2.2
32	E5	110	ALA	2.2
35	DC	127	ARG	2.2
40	BH	31	LYS	2.2
54	FV	383	ALA	2.2
15	AO	54	VAL	2.2
33	DA	436	C	2.2
50	FR	47	THR	2.2
54	FV	100	GLU	2.2
1	CA	1538	G	2.2
1	CA	2144	G	2.2
1	GA	882	G	2.2
20	AT	92	ASN	2.2
46	HN	42	TRP	2.2
3	AC	250	GLN	2.2
47	BO	28	GLN	2.2
54	FV	433	LEU	2.2
36	FD	200	ILE	2.2
8	AH	50	ARG	2.2
9	CI	19	PRO	2.2
9	GI	84	GLY	2.2
12	AL	70	LYS	2.2
32	A5	109	LYS	2.2
35	DC	80	LYS	2.2
1	CA	1584	U	2.2
5	CE	8	ALA	2.2
6	GF	154	THR	2.2
34	DB	137	THR	2.2
41	FI	4	ASN	2.2
47	BO	22	THR	2.2
1	AA	2153	C	2.2
5	AE	109	LEU	2.2
6	GF	86	CYS	2.2
7	CG	21	GLN	2.2
25	EY	22	LEU	2.2
34	HB	211	LEU	2.2
54	FV	55	GLN	2.2
54	FV	466	LEU	2.2
11	AK	77	ILE	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
52	DT	83	ILE	2.2
1	CA	1731	G	2.2
18	GR	97	LYS	2.2
33	DA	846	G	2.2
42	BJ	11	LYS	2.2
1	AA	613	A	2.2
42	DJ	38	GLY	2.2
43	DK	53	ARG	2.2
54	FV	128	ARG	2.2
21	GU	61	GLU	2.2
23	AW	73	PRO	2.2
45	HM	112	PRO	2.2
54	HV	136	PRO	2.2
1	CA	2797	U	2.2
18	GR	14	VAL	2.2
35	DC	95	ALA	2.2
35	DC	99	ALA	2.2
54	FV	209	ALA	2.2
54	HV	48	ALA	2.2
54	HV	311	ALA	2.2
19	AS	38	TYR	2.2
24	CX	77	TYR	2.2
24	GX	77	TYR	2.2
38	DF	25	TYR	2.2
5	AE	180	LEU	2.2
6	CF	34	THR	2.2
6	CF	62	GLN	2.2
7	CG	33	THR	2.2
7	EG	103	ASN	2.2
7	EG	106	LEU	2.2
9	AI	33	ASN	2.2
14	EN	70	THR	2.2
15	AO	98	GLN	2.2
34	DB	121	GLN	2.2
12	GL	96	LYS	2.2
28	A1	33	LEU	2.2
36	DD	121	LYS	2.2
36	HD	9	LEU	2.2
39	HG	124	LEU	2.2
41	HI	27	LYS	2.2
48	FP	54	LEU	2.2
54	HV	530	ASN	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	DV	52	TRP	2.2
54	FV	187	LYS	2.2
4	CD	48	ILE	2.2
38	DF	91	ARG	2.2
40	DH	46	ILE	2.2
1	GA	885	C	2.2
1	GA	1925	C	2.2
16	AP	64	SER	2.2
32	A5	115	GLY	2.2
33	HA	1027	C	2.2
34	FB	93	HIS	2.2
51	FS	30	PRO	2.2
54	DV	403	PRO	2.2
4	ED	90	PHE	2.2
14	GN	25	ALA	2.2
34	FB	68	PHE	2.2
39	DG	107	ALA	2.2
41	DI	20	PHE	2.2
47	HO	15	PHE	2.2
54	FV	329	PHE	2.2
54	HV	641	MET	2.2
16	AP	32	VAL	2.2
19	GS	47	VAL	2.2
34	HB	209	VAL	2.2
36	BD	137	VAL	2.2
42	FJ	36	VAL	2.2
52	FT	63	ALA	2.2
54	DV	611	VAL	2.2
54	FV	110	VAL	2.2
8	CH	42	LYS	2.2
32	E5	9	GLN	2.2
49	HQ	9	GLN	2.2
52	DT	82	GLN	2.2
54	HV	78	GLN	2.2
6	EF	169	LEU	2.2
5	GE	13	THR	2.2
7	GG	37	ASN	2.2
43	FK	42	LEU	2.2
6	AF	166	ARG	2.2
34	HB	71	THR	2.2
46	HN	43	ASN	2.2
49	HQ	70	THR	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
52	HT	84	ASN	2.2
12	CL	77	ILE	2.2
13	GM	59	ARG	2.2
17	AQ	89	ILE	2.2
20	GT	80	TRP	2.2
32	E5	123	ILE	2.2
45	DM	22	ILE	2.2
49	DQ	73	TRP	2.2
49	HQ	25	ILE	2.2
54	HV	371	ARG	2.2
35	HC	13	GLY	2.2
45	HM	14	HIS	2.2
49	BQ	80	GLU	2.2
27	G0	26	SER	2.2
33	HA	1302	C	2.2
6	AF	113	PHE	2.2
13	GM	28	PHE	2.2
15	GO	92	PHE	2.2
36	BD	37	ALA	2.2
37	HE	137	VAL	2.2
45	FM	16	VAL	2.2
45	FM	44	LYS	2.2
54	DV	605	PHE	2.2
1	AA	1173	U	2.2
9	AI	13	ALA	2.2
9	CI	119	ALA	2.2
19	GS	5	ALA	2.2
34	BB	209	VAL	2.2
54	DV	105	VAL	2.2
7	AG	34	ARG	2.2
35	HC	43	LEU	2.2
39	FG	111	ARG	2.2
1	AA	1738	G	2.2
9	AI	141	ASP	2.2
9	EI	18	ASN	2.2
39	DG	7	ILE	2.2
54	DV	537	ILE	2.2
54	HV	407	GLU	2.2
15	EO	56	LYS	2.2
53	DU	40	LYS	2.2
51	HS	44	MET	2.2
7	AG	16	VAL	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	E5	83	ALA	2.2
34	DB	198	VAL	2.2
39	BG	79	ARG	2.2
49	HQ	11	ARG	2.2
53	HU	32	VAL	2.2
5	GE	143	LEU	2.2
14	CN	79	LEU	2.2
47	DO	57	LEU	2.2
47	DO	85	LEU	2.2
50	HR	51	TYR	2.2
51	DS	31	LEU	2.2
9	CI	122	GLU	2.2
21	GU	80	ASP	2.2
28	C1	34	GLU	2.2
47	BO	18	ASP	2.2
6	GF	33	ILE	2.2
8	CH	34	GLY	2.2
15	GO	87	ILE	2.2
27	A0	54	ILE	2.2
33	BA	81	A	2.2
34	DB	30	ILE	2.2
39	HG	7	ILE	2.2
40	HH	125	ILE	2.2
41	DI	30	ILE	2.2
54	HV	556	GLY	2.2
38	FF	58	HIS	2.2
45	BM	13	LYS	2.2
39	FG	83	SER	2.2
9	EI	55	PRO	2.2
9	GI	133	ARG	2.2
37	HE	93	ARG	2.2
43	BK	37	ARG	2.2
46	DN	6	MET	2.2
4	ED	119	ALA	2.2
8	EH	37	VAL	2.2
13	GM	131	VAL	2.2
5	GE	180	LEU	2.2
7	CG	104	LEU	2.2
15	CO	50	ALA	2.2
25	GY	17	GLU	2.2
1	CA	2145	C	2.2
38	BF	13	ASP	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	DC	2	GLY	2.2
36	BD	33	LYS	2.2
37	BE	106	ILE	2.2
40	FH	69	LYS	2.2
43	BK	79	ILE	2.2
54	FV	653	LYS	2.2
45	BM	12	HIS	2.1
6	GF	166	ARG	2.1
17	EQ	86	SER	2.1
20	AT	80	TRP	2.1
21	GU	85	ARG	2.1
47	BO	58	ARG	2.1
54	FV	417	SER	2.1
11	AK	110	GLU	2.1
19	CS	1	MET	2.1
25	EY	36	GLN	2.1
35	DC	98	PRO	2.1
36	DD	113	GLU	2.1
36	HD	147	GLU	2.1
54	FV	168	PRO	2.1
54	HV	663	MET	2.1
1	AA	2144	G	2.1
1	GA	139	U	2.1
5	CE	45	ALA	2.1
5	EE	143	LEU	2.1
17	AQ	116	LEU	2.1
25	CY	22	LEU	2.1
33	BA	1125	U	2.1
34	FB	69	VAL	2.1
36	BD	117	LEU	2.1
39	DG	124	LEU	2.1
44	BL	16	VAL	2.1
44	HL	93	VAL	2.1
54	BV	519	VAL	2.1
7	CG	85	LYS	2.1
6	AF	75	GLY	2.1
21	AU	7	ASP	2.1
34	BB	122	ASP	2.1
44	BL	18	LYS	2.1
45	HM	27	LYS	2.1
53	DU	54	LYS	2.1
39	FG	82	GLY	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	240	GLY	2.1
15	EO	58	ILE	2.1
41	HI	72	ILE	2.1
42	HJ	25	ILE	2.1
45	BM	45	ILE	2.1
8	CH	50	ARG	2.1
23	EW	9	THR	2.1
36	BD	115	ARG	2.1
42	BJ	89	ARG	2.1
47	BO	89	ARG	2.1
50	DR	73	ARG	2.1
6	GF	18	GLU	2.1
15	CO	97	PHE	2.1
36	FD	20	PHE	2.1
38	BF	46	GLN	2.1
54	BV	308	GLU	2.1
54	FV	268	SER	2.1
22	GV	34	LYS	2.1
33	HA	205	A	2.1
38	HF	93	LYS	2.1
45	FM	10	PRO	2.1
52	BT	64	LYS	2.1
19	CS	106	VAL	2.1
20	GT	93	LEU	2.1
32	E5	15	VAL	2.1
33	DA	723	U	2.1
34	BB	96	LEU	2.1
34	DB	82	ALA	2.1
34	DB	220	VAL	2.1
34	HB	69	VAL	2.1
46	HN	27	LEU	2.1
35	BC	99	ALA	2.1
38	BF	10	VAL	2.1
40	BH	99	LEU	2.1
41	DI	35	LEU	2.1
54	FV	214	LEU	2.1
51	HS	75	ALA	2.1
53	DU	52	ALA	2.1
54	HV	172	ALA	2.1
36	BD	29	ASP	2.1
37	FE	102	GLY	2.1
1	AA	1869	G	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	AA	2102	G	2.1
20	GT	74	ILE	2.1
27	C0	54	ILE	2.1
41	HI	83	ILE	2.1
46	DN	31	ILE	2.1
48	DP	33	ILE	2.1
3	CC	250	GLN	2.1
6	CF	46	LYS	2.1
15	GO	3	LYS	2.1
25	GY	39	GLN	2.1
51	HS	24	GLU	2.1
43	DK	125	LYS	2.1
49	BQ	20	SER	2.1
50	BR	50	LYS	2.1
54	FV	180	THR	2.1
14	AN	51	LEU	2.1
20	CT	14	PRO	2.1
53	DU	23	CYS	2.1
40	DH	61	LEU	2.1
45	HM	64	VAL	2.1
47	BO	31	LEU	2.1
1	GA	1848	A	2.1
38	BF	43	GLY	2.1
45	HM	88	GLY	2.1
54	HV	215	ALA	2.1
6	EF	82	TYR	2.1
6	EF	79	ARG	2.1
7	GG	169	ARG	2.1
36	FD	73	ARG	2.1
41	FI	124	ARG	2.1
44	HL	121	ARG	2.1
5	CE	127	GLU	2.1
12	EL	84	LYS	2.1
36	HD	179	GLU	2.1
1	CA	883	G	2.1
1	EA	2138	G	2.1
7	CG	51	PHE	2.1
26	CZ	52	PHE	2.1
35	BC	100	GLN	2.1
36	DD	71	GLN	2.1
39	HG	151	PHE	2.1
54	HV	202	PHE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	HJ	80	THR	2.1
54	BV	305	THR	2.1
54	FV	69	THR	2.1
19	CS	82	MET	2.1
34	FB	48	MET	2.1
3	EC	3	VAL	2.1
19	ES	47	VAL	2.1
19	GS	45	VAL	2.1
21	CU	12	VAL	2.1
21	CU	41	VAL	2.1
33	HA	1011	C	2.1
5	AE	45	ALA	2.1
21	GU	75	ALA	2.1
38	FF	66	ALA	2.1
44	FL	2	ALA	2.1
44	HL	113	ALA	2.1
47	HO	88	ARG	2.1
6	EF	7	TYR	2.1
9	GI	80	LYS	2.1
15	AO	20	GLU	2.1
18	CR	27	ILE	2.1
21	CU	100	GLU	2.1
33	FA	78	A	2.1
41	BI	30	ILE	2.1
41	BI	83	ILE	2.1
42	DJ	18	ILE	2.1
45	BM	7	ILE	2.1
34	BB	68	PHE	2.1
6	EF	15	LEU	2.1
7	AG	32	LEU	2.1
7	GG	50	THR	2.1
47	HO	2	SER	2.1
15	CO	26	LEU	2.1
20	AT	32	LEU	2.1
25	EY	6	LEU	2.1
54	DV	320	LEU	2.1
54	FV	34	THR	2.1
9	AI	15	GLY	2.1
9	AI	32	VAL	2.1
10	CJ	105	VAL	2.1
43	HK	37	ARG	2.1
48	BP	10	GLY	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	2790	U	2.1
1	EA	1174	U	2.1
1	GA	2180	U	2.1
9	GI	17	ALA	2.1
40	DH	69	LYS	2.1
42	DJ	34	ALA	2.1
45	DM	114	LYS	2.1
46	HN	25	ALA	2.1
48	DP	34	GLU	2.1
49	DQ	63	GLU	2.1
54	DV	246	ALA	2.1
54	FV	130	ALA	2.1
9	EI	61	TYR	2.1
15	EO	87	ILE	2.1
26	AZ	47	ILE	2.1
45	DM	7	ILE	2.1
51	DS	49	ILE	2.1
54	BV	576	ILE	2.1
7	EG	47	ASN	2.1
15	CO	61	GLN	2.1
39	BG	52	GLN	2.1
33	BA	1145	A	2.1
33	FA	532	A	2.1
5	CE	143	LEU	2.1
6	GF	15	LEU	2.1
6	GF	102	LEU	2.1
20	AT	11	LEU	2.1
25	GY	37	LEU	2.1
41	FI	61	LEU	2.1
6	CF	64	PRO	2.1
16	CP	5	LYS	2.1
6	GF	55	ASP	2.1
7	EG	15	ASP	2.1
9	AI	129	GLU	2.1
9	GI	63	ASP	2.1
12	GL	91	ASP	2.1
15	GO	93	ASP	2.1
22	CV	66	ASP	2.1
25	CY	17	GLU	2.1
34	DB	216	VAL	2.1
54	DV	211	MET	2.1
54	DV	559	GLU	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	FV	103	MET	2.1
1	GA	2188	U	2.1
6	GF	69	ALA	2.1
9	CI	103	ALA	2.1
9	GI	82	ALA	2.1
33	DA	1286	U	2.1
9	AI	54	ILE	2.1
12	GL	101	ILE	2.1
21	GU	34	ILE	2.1
24	AX	77	TYR	2.1
1	GA	880	G	2.1
1	GA	881	G	2.1
21	GU	73	ASN	2.1
54	DV	221	ASN	2.1
1	CA	2104	C	2.1
5	CE	194	LYS	2.1
6	GF	91	ARG	2.1
9	GI	102	ARG	2.1
15	AO	62	LEU	2.1
21	AU	18	LYS	2.1
21	CU	40	LEU	2.1
36	DD	115	ARG	2.1
41	DI	119	ARG	2.1
39	BG	8	GLY	2.1
45	DM	48	LEU	2.1
45	HM	31	LYS	2.1
46	DN	12	LYS	2.1
23	AW	51	GLY	2.1
8	AH	40	THR	2.1
9	CI	53	PRO	2.1
32	A5	79	PRO	2.1
34	BB	37	VAL	2.1
34	DB	204	ASP	2.1
34	FB	152	ASP	2.1
38	BF	62	MET	2.1
54	FV	395	ASP	2.1
54	HV	403	PRO	2.1
5	GE	11	ALA	2.1
10	AJ	81	ILE	2.1
12	EL	101	ILE	2.1
21	CU	50	ALA	2.1
32	E5	135	ALA	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DM	4	ILE	2.1
49	DQ	24	ALA	2.1
54	BV	567	ALA	2.1
8	EH	25	TYR	2.1
9	CI	61	TYR	2.1
41	FI	7	TYR	2.1
7	GG	17	LYS	2.1
34	DB	125	PHE	2.1
34	FB	31	PHE	2.1
34	HB	36	LYS	2.1
48	DP	39	PHE	2.1
54	HV	336	PHE	2.1
26	CZ	38	GLU	2.1
33	BA	838	G	2.1
33	DA	210	C	2.1
33	FA	840	C	2.1
36	BD	108	GLY	2.1
54	FV	453	SER	2.1
1	AA	1847	A	2.0
9	EI	45	THR	2.0
15	GO	47	VAL	2.0
42	HJ	88	MET	2.0
43	HK	65	VAL	2.0
53	FU	43	THR	2.0
54	DV	395	ASP	2.0
54	HV	527	PRO	2.0
33	DA	1492	A	2.0
54	FV	49	THR	2.0
33	FA	93	U	2.0
12	GL	141	LYS	2.0
14	AN	113	ILE	2.0
34	HB	218	ALA	2.0
40	DH	118	GLN	2.0
43	HK	103	ALA	2.0
45	BM	22	ILE	2.0
45	BM	39	ILE	2.0
46	FN	22	ALA	2.0
54	HV	321	ALA	2.0
52	HT	49	LYS	2.0
6	AF	114	ARG	2.0
14	AN	80	PHE	2.0
20	GT	12	ARG	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	BE	157	ARG	2.0
44	DL	61	PHE	2.0
9	CI	49	GLU	2.0
24	AX	75	GLU	2.0
34	BB	43	GLU	2.0
43	FK	24	HIS	2.0
54	DV	590	GLU	2.0
9	EI	79	LEU	2.0
9	EI	105	LEU	2.0
12	CL	6	LEU	2.0
52	FT	42	GLY	2.0
16	EP	1	SER	2.0
1	GA	2145	C	2.0
9	EI	63	ASP	2.0
23	GW	30	VAL	2.0
33	HA	90	C	2.0
34	HB	135	MET	2.0
36	DD	67	VAL	2.0
36	DD	155	VAL	2.0
39	HG	149	LYS	2.0
41	DI	19	VAL	2.0
41	FI	62	ASP	2.0
41	HI	19	VAL	2.0
51	BS	64	ASP	2.0
54	FV	694	VAL	2.0
12	GL	104	GLN	2.0
27	A0	25	THR	2.0
31	G4	37	GLN	2.0
42	DJ	22	THR	2.0
54	HV	618	LYS	2.0
5	AE	8	ALA	2.0
6	AF	153	ILE	2.0
7	GG	173	ALA	2.0
9	AI	119	ALA	2.0
35	DC	75	ILE	2.0
36	BD	193	ALA	2.0
38	FF	32	ALA	2.0
39	HG	107	ALA	2.0
1	AA	1871	A	2.0
21	AU	85	ARG	2.0
34	BB	94	ARG	2.0
20	GT	84	TYR	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	CY	13	GLU	2.0
28	G1	20	TYR	2.0
34	FB	89	PHE	2.0
36	HD	163	GLU	2.0
39	FG	62	PHE	2.0
54	BV	605	PHE	2.0
54	HV	687	TYR	2.0
43	HK	28	ASN	2.0
7	EG	44	HIS	2.0
32	E5	41	LEU	2.0
36	FD	93	LEU	2.0
39	FG	55	GLY	2.0
52	DT	66	LEU	2.0
54	HV	31	LEU	2.0
4	GD	55	LYS	2.0
9	CI	20	SER	2.0
15	CO	88	LYS	2.0
34	BB	61	SER	2.0
5	GE	1	MET	2.0
14	GN	1	MET	2.0
34	BB	181	PRO	2.0
34	DB	115	ASP	2.0
34	HB	111	LYS	2.0
37	BE	142	ASP	2.0
54	HV	485	LYS	2.0
38	FF	10	VAL	2.0
41	HI	58	VAL	2.0
43	BK	86	VAL	2.0
45	DM	97	VAL	2.0
46	DN	34	VAL	2.0
52	HT	54	MET	2.0
1	GA	2105	U	2.0
6	GF	66	ILE	2.0
11	AK	71	ARG	2.0
12	GL	2	ARG	2.0
15	GO	24	THR	2.0
20	ET	2	ILE	2.0
22	GV	36	ALA	2.0
28	A1	4	ILE	2.0
34	DB	118	THR	2.0
34	DB	150	ILE	2.0
38	DF	45	ARG	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DJ	16	ARG	2.0
42	HJ	89	ARG	2.0
43	HK	122	ARG	2.0
35	DC	50	ALA	2.0
36	FD	149	ALA	2.0
45	HM	45	ILE	2.0
48	HP	3	THR	2.0
51	HS	55	ARG	2.0
9	AI	140	GLU	2.0
9	EI	107	GLU	2.0
11	EK	68	GLY	2.0
23	EW	75	ASN	2.0
1	CA	2135	A	2.0
33	BA	1134	G	2.0
33	FA	846	G	2.0
33	HA	1018	G	2.0
38	FF	52	ASN	2.0
34	BB	116	LEU	2.0
36	HD	198	HIS	2.0
44	FL	49	LEU	2.0
44	HL	24	LEU	2.0
54	BV	505	HIS	2.0
54	DV	566	LEU	2.0
5	AE	6	LYS	2.0
7	CG	133	LYS	2.0
9	CI	96	LYS	2.0
18	GR	48	LYS	2.0
23	GW	18	LYS	2.0
25	GY	60	LYS	2.0
28	A1	9	LYS	2.0
5	EE	126	VAL	2.0
9	EI	11	GLN	2.0
15	GO	108	ASP	2.0
34	BB	81	ASP	2.0
21	AU	92	VAL	2.0
25	AY	39	GLN	2.0
41	DI	37	GLN	2.0
47	DO	29	VAL	2.0
49	HQ	58	VAL	2.0
51	HS	51	VAL	2.0
54	BV	527	PRO	2.0
26	GZ	6	ILE	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	172	ILE	2.0
36	HD	172	GLU	2.0
39	HG	139	GLU	2.0
40	BH	73	GLU	2.0
42	BJ	78	GLU	2.0
43	FK	97	ILE	2.0
48	DP	45	GLU	2.0
54	DV	308	GLU	2.0
54	FV	452	GLU	2.0
54	HV	374	ILE	2.0
1	AA	2105	U	2.0
21	GU	79	ALA	2.0
54	FV	17	ALA	2.0
6	EF	142	TYR	2.0
38	HF	8	PHE	2.0
7	AG	86	LEU	2.0
25	EY	20	ASN	2.0
27	G0	56	LYS	2.0
34	DB	202	ASN	2.0
40	DH	32	LEU	2.0
54	FV	286	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
55	KBE	BW	1	9/10	0.62	6.14	37,39,42,44	9
55	DPP	FW	2	6/7	0.98	5.69	37,42,43,43	6
55	KBE	FW	1	9/10	0.56	4.99	28,36,40,42	9
55	KBE	DW	1	9/10	0.37	4.62	32,33,40,41	9
55	5OH	FW	6	12/13	0.72	3.85	37,42,45,46	12
55	UAL	FW	5	9/10	0.62	2.81	35,37,39,41	9
55	UAL	BW	5	9/10	0.60	2.14	32,40,42,42	9
55	DPP	BW	2	6/7	0.51	1.91	34,36,39,40	6
55	5OH	BW	6	12/13	0.48	1.51	36,37,41,43	12
55	5OH	DW	6	12/13	0.46	1.32	33,41,43,48	12

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	DPP	DW	2	6/7	0.43	1.28	32,34,37,44	6
55	UAL	DW	5	9/10	0.43	0.92	35,39,42,46	9

6.3 Carbohydrates

There are no carbohydrates in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	EA	3011	1/1	0.85	62.54	17,17,17,17	0
56	MG	EA	3055	1/1	0.44	57.91	14,14,14,14	0
56	MG	DA	1629	1/1	0.43	54.82	54,54,54,54	0
56	MG	EA	3087	1/1	0.67	46.81	30,30,30,30	0
56	MG	CA	3114	1/1	0.53	41.68	25,25,25,25	0
56	MG	AA	3055	1/1	0.17	39.00	18,18,18,18	0
56	MG	HA	1613	1/1	0.65	37.83	41,41,41,41	0
56	MG	AA	3059	1/1	0.57	36.88	12,12,12,12	0
56	MG	FA	1636	1/1	0.58	36.80	38,38,38,38	0
56	MG	CA	3118	1/1	0.30	35.50	29,29,29,29	0
56	MG	GA	3059	1/1	0.49	32.45	44,44,44,44	0
56	MG	CA	3011	1/1	0.37	30.08	23,23,23,23	0
56	MG	AA	3060	1/1	0.43	28.55	25,25,25,25	0
56	MG	GA	3073	1/1	0.49	27.75	20,20,20,20	0
56	MG	AC	303	1/1	0.97	26.36	34,34,34,34	0
56	MG	CA	3097	1/1	0.75	24.78	22,22,22,22	0
56	MG	GA	3094	1/1	0.48	23.59	22,22,22,22	0
56	MG	EQ	201	1/1	0.60	22.24	31,31,31,31	0
56	MG	DA	1602	1/1	0.40	21.28	31,31,31,31	0
56	MG	EA	3015	1/1	0.49	20.06	1,1,1,1	0
56	MG	EA	3042	1/1	0.19	19.42	2,2,2,2	0
56	MG	BA	1606	1/1	0.43	18.84	39,39,39,39	0
56	MG	AA	3123	1/1	0.17	17.71	14,14,14,14	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	GA	3037	1/1	0.21	17.44	19,19,19,19	0
56	MG	GA	3133	1/1	0.21	16.26	4,4,4,4	0
56	MG	HA	1611	1/1	0.23	15.83	20,20,20,20	0
56	MG	FE	201	1/1	0.71	14.91	52,52,52,52	0
56	MG	AA	3098	1/1	0.21	14.73	5,5,5,5	0
56	MG	GS	201	1/1	0.48	13.33	33,33,33,33	0
56	MG	EA	3099	1/1	0.29	13.22	2,2,2,2	0
56	MG	FA	1609	1/1	0.33	11.78	16,16,16,16	0
56	MG	EA	3020	1/1	0.25	11.66	4,4,4,4	0
56	MG	GA	3123	1/1	0.22	11.64	11,11,11,11	0
56	MG	GA	3087	1/1	0.19	10.82	19,19,19,19	0
56	MG	EA	3069	1/1	0.44	10.80	4,4,4,4	0
56	MG	FA	1610	1/1	0.18	10.38	35,35,35,35	0
56	MG	DA	1628	1/1	0.35	9.92	37,37,37,37	0
56	MG	EA	3060	1/1	0.30	9.62	3,3,3,3	0
56	MG	BA	1607	1/1	0.26	9.32	8,8,8,8	0
56	MG	HA	1621	1/1	0.32	9.18	29,29,29,29	0
56	MG	CA	3051	1/1	0.28	9.07	7,7,7,7	0
56	MG	BA	1635	1/1	0.22	9.03	29,29,29,29	0
56	MG	FA	1624	1/1	0.19	8.94	18,18,18,18	0
56	MG	HA	1610	1/1	0.27	8.86	13,13,13,13	0
56	MG	DA	1636	1/1	0.24	8.82	41,41,41,41	0
56	MG	GA	3100	1/1	0.20	8.73	19,19,19,19	0
56	MG	GA	3068	1/1	0.22	8.52	15,15,15,15	0
56	MG	BA	1614	1/1	0.33	8.18	26,26,26,26	0
56	MG	AA	3117	1/1	0.25	8.09	7,7,7,7	0
56	MG	FA	1639	1/1	0.26	7.93	25,25,25,25	0
56	MG	AA	3102	1/1	0.24	7.79	0,0,0,0	0
56	MG	EA	3120	1/1	0.22	7.71	0,0,0,0	0
56	MG	GA	3118	1/1	0.27	7.70	9,9,9,9	0
56	MG	AA	3028	1/1	0.26	7.68	2,2,2,2	0
56	MG	AA	3109	1/1	0.23	7.61	6,6,6,6	0
56	MG	GA	3102	1/1	0.30	7.40	40,40,40,40	0
56	MG	GA	3060	1/1	0.38	7.38	23,23,23,23	0
56	MG	EA	3067	1/1	0.25	7.27	4,4,4,4	0
56	MG	CA	3085	1/1	0.25	7.16	28,28,28,28	0
56	MG	AC	301	1/1	0.42	7.07	10,10,10,10	0
56	MG	DA	1640	1/1	0.19	7.01	21,21,21,21	0
56	MG	FA	1612	1/1	0.28	7.00	17,17,17,17	0
56	MG	GA	3063	1/1	0.26	6.99	3,3,3,3	0
56	MG	AA	3005	1/1	0.18	6.95	23,23,23,23	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	EA	3123	1/1	0.30	6.81	2,2,2,2	0
56	MG	CA	3091	1/1	0.21	6.76	40,40,40,40	0
56	MG	GA	3070	1/1	0.20	6.71	13,13,13,13	0
56	MG	EA	3121	1/1	0.23	6.66	1,1,1,1	0
56	MG	GA	3103	1/1	0.24	6.52	12,12,12,12	0
56	MG	HA	1604	1/1	0.19	6.40	27,27,27,27	0
56	MG	FA	1623	1/1	0.21	6.25	7,7,7,7	0
56	MG	BA	1612	1/1	0.22	6.22	5,5,5,5	0
56	MG	HA	1612	1/1	0.18	6.18	8,8,8,8	0
56	MG	GA	3067	1/1	0.20	6.15	16,16,16,16	0
56	MG	GA	3044	1/1	0.21	6.13	23,23,23,23	0
56	MG	GA	3115	1/1	0.23	6.05	23,23,23,23	0
56	MG	GA	3081	1/1	0.20	5.99	16,16,16,16	0
56	MG	FA	1628	1/1	0.20	5.99	19,19,19,19	0
56	MG	HT	101	1/1	0.46	5.96	41,41,41,41	0
56	MG	HA	1626	1/1	0.30	5.93	32,32,32,32	0
56	MG	GA	3034	1/1	0.19	5.89	16,16,16,16	0
56	MG	CA	3073	1/1	0.25	5.83	5,5,5,5	0
56	MG	AA	3083	1/1	0.27	5.79	33,33,33,33	0
56	MG	GB	1202	1/1	0.16	5.70	36,36,36,36	0
56	MG	CA	3040	1/1	0.20	5.57	12,12,12,12	0
56	MG	EA	3049	1/1	0.23	5.53	8,8,8,8	0
56	MG	CA	3079	1/1	0.23	5.53	12,12,12,12	0
56	MG	EA	3073	1/1	0.19	5.48	0,0,0,0	0
56	MG	GA	3039	1/1	0.18	5.40	15,15,15,15	0
56	MG	GA	3040	1/1	0.23	5.27	16,16,16,16	0
56	MG	GA	3080	1/1	0.22	5.26	5,5,5,5	0
56	MG	HA	1625	1/1	0.28	5.23	22,22,22,22	0
56	MG	CA	3096	1/1	0.22	5.13	10,10,10,10	0
56	MG	GA	3084	1/1	0.27	5.13	25,25,25,25	0
56	MG	AA	3018	1/1	0.19	5.09	12,12,12,12	0
56	MG	FA	1621	1/1	0.19	5.03	10,10,10,10	0
56	MG	HA	1601	1/1	0.15	5.01	38,38,38,38	0
56	MG	GA	3131	1/1	0.20	4.93	41,41,41,41	0
56	MG	AA	3010	1/1	0.23	4.88	13,13,13,13	0
56	MG	AA	3009	1/1	0.23	4.85	12,12,12,12	0
56	MG	BA	1637	1/1	0.27	4.84	29,29,29,29	0
56	MG	CA	3005	1/1	0.20	4.84	31,31,31,31	0
56	MG	CA	3121	1/1	0.22	4.84	3,3,3,3	0
56	MG	GA	3014	1/1	0.27	4.78	8,8,8,8	0
56	MG	FA	1627	1/1	0.31	4.71	23,23,23,23	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	ED	301	1/1	0.29	4.59	7,7,7,7	0
56	MG	AA	3062	1/1	0.18	4.58	2,2,2,2	0
56	MG	BA	1638	1/1	0.16	4.54	31,31,31,31	0
56	MG	EA	3088	1/1	0.15	4.46	6,6,6,6	0
56	MG	DA	1612	1/1	0.19	4.43	11,11,11,11	0
56	MG	AA	3107	1/1	0.19	4.41	18,18,18,18	0
56	MG	EA	3132	1/1	0.22	4.38	6,6,6,6	0
56	MG	DA	1621	1/1	0.20	4.36	22,22,22,22	0
56	MG	FA	1605	1/1	0.16	4.33	36,36,36,36	0
56	MG	EA	3061	1/1	0.22	4.29	0,0,0,0	0
56	MG	CA	3010	1/1	0.24	4.28	10,10,10,10	0
56	MG	EA	3050	1/1	0.23	4.27	13,13,13,13	0
56	MG	EA	3027	1/1	0.19	4.17	0,0,0,0	0
56	MG	HA	1632	1/1	0.22	4.16	25,25,25,25	0
56	MG	AA	3115	1/1	0.17	4.09	32,32,32,32	0
56	MG	GA	3005	1/1	0.17	4.07	15,15,15,15	0
56	MG	EA	3078	1/1	0.18	3.94	3,3,3,3	0
56	MG	AA	3091	1/1	0.15	3.89	16,16,16,16	0
56	MG	EA	3108	1/1	0.15	3.88	31,31,31,31	0
56	MG	EA	3009	1/1	0.18	3.84	0,0,0,0	0
56	MG	FA	1611	1/1	0.24	3.84	0,0,0,0	0
56	MG	AA	3041	1/1	0.17	3.81	2,2,2,2	0
56	MG	GA	3033	1/1	0.21	3.78	12,12,12,12	0
56	MG	BA	1625	1/1	0.22	3.77	21,21,21,21	0
56	MG	EA	3025	1/1	0.21	3.75	0,0,0,0	0
56	MG	GA	3120	1/1	0.20	3.74	5,5,5,5	0
56	MG	FA	1608	1/1	0.19	3.72	14,14,14,14	0
56	MG	GA	3030	1/1	0.25	3.70	11,11,11,11	0
56	MG	CA	3119	1/1	0.19	3.60	3,3,3,3	0
56	MG	EA	3126	1/1	0.16	3.57	2,2,2,2	0
56	MG	EA	3031	1/1	0.23	3.57	2,2,2,2	0
56	MG	EA	3052	1/1	0.20	3.47	2,2,2,2	0
56	MG	EA	3064	1/1	0.18	3.44	0,0,0,0	0
56	MG	GA	3091	1/1	0.14	3.43	11,11,11,11	0
56	MG	GA	3009	1/1	0.20	3.39	20,20,20,20	0
56	MG	EA	3122	1/1	0.18	3.39	0,0,0,0	0
56	MG	HA	1602	1/1	0.28	3.35	48,48,48,48	0
56	MG	EA	3114	1/1	0.18	3.33	1,1,1,1	0
56	MG	GA	3029	1/1	0.18	3.27	5,5,5,5	0
56	MG	BA	1615	1/1	0.19	3.20	22,22,22,22	0
56	MG	GA	3083	1/1	0.24	3.16	33,33,33,33	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	GA	3020	1/1	0.19	3.10	3,3,3,3	0
56	MG	AA	3078	1/1	0.24	3.10	29,29,29,29	0
56	MG	GA	3110	1/1	0.19	3.07	12,12,12,12	0
56	MG	GA	3088	1/1	0.17	3.03	8,8,8,8	0
56	MG	EA	3079	1/1	0.21	3.02	0,0,0,0	0
56	MG	EA	3129	1/1	0.22	3.00	0,0,0,0	0
56	MG	CE	301	1/1	0.23	2.95	16,16,16,16	0
56	MG	HA	1603	1/1	0.27	2.94	38,38,38,38	0
56	MG	GA	3072	1/1	0.16	2.94	13,13,13,13	0
56	MG	GA	3051	1/1	0.17	2.88	4,4,4,4	0
56	MG	GA	3106	1/1	0.22	2.85	3,3,3,3	0
56	MG	CA	3028	1/1	0.20	2.84	7,7,7,7	0
56	MG	CA	3123	1/1	0.17	2.81	8,8,8,8	0
56	MG	EA	3118	1/1	0.19	2.80	1,1,1,1	0
56	MG	GA	3042	1/1	0.16	2.79	24,24,24,24	0
56	MG	GA	3047	1/1	0.19	2.73	27,27,27,27	0
56	MG	FA	1640	1/1	0.18	2.69	23,23,23,23	0
56	MG	BA	1619	1/1	0.19	2.69	28,28,28,28	0
56	MG	DA	1631	1/1	0.16	2.68	25,25,25,25	0
56	MG	CA	3030	1/1	0.22	2.67	11,11,11,11	0
56	MG	BA	1622	1/1	0.20	2.63	32,32,32,32	0
56	MG	AA	3042	1/1	0.17	2.62	11,11,11,11	0
56	MG	EA	3085	1/1	0.19	2.62	4,4,4,4	0
56	MG	GA	3108	1/1	0.14	2.61	16,16,16,16	0
56	MG	GA	3048	1/1	0.18	2.59	6,6,6,6	0
56	MG	GA	3004	1/1	0.37	2.59	19,19,19,19	0
56	MG	BA	1618	1/1	0.15	2.57	3,3,3,3	0
56	MG	CA	3107	1/1	0.19	2.52	6,6,6,6	0
56	MG	GA	3010	1/1	0.26	2.50	15,15,15,15	0
56	MG	GA	3129	1/1	0.18	2.49	19,19,19,19	0
56	MG	GA	3061	1/1	0.18	2.47	10,10,10,10	0
56	MG	EA	3034	1/1	0.21	2.47	0,0,0,0	0
56	MG	HA	1639	1/1	0.18	2.39	20,20,20,20	0
56	MG	EA	3131	1/1	0.19	2.38	5,5,5,5	0
56	MG	BV	802	1/1	0.19	2.36	27,27,27,27	0
56	MG	GA	3078	1/1	0.21	2.32	40,40,40,40	0
56	MG	GA	3052	1/1	0.17	2.31	8,8,8,8	0
56	MG	AA	3007	1/1	0.19	2.29	44,44,44,44	0
56	MG	AA	3093	1/1	0.21	2.28	34,34,34,34	0
56	MG	GA	3114	1/1	0.16	2.28	10,10,10,10	0
56	MG	HA	1630	1/1	0.16	2.22	40,40,40,40	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3084	1/1	0.20	2.20	12,12,12,12	0
56	MG	HA	1607	1/1	0.18	2.20	11,11,11,11	0
56	MG	EA	3107	1/1	0.20	2.18	0,0,0,0	0
56	MG	CA	3037	1/1	0.19	2.18	1,1,1,1	0
56	MG	CA	3039	1/1	0.21	2.17	6,6,6,6	0
56	MG	DA	1616	1/1	0.25	2.14	26,26,26,26	0
56	MG	CA	3077	1/1	0.21	2.13	35,35,35,35	0
56	MG	GA	3111	1/1	0.17	2.12	11,11,11,11	0
56	MG	EA	3102	1/1	0.21	2.12	0,0,0,0	0
56	MG	AA	3033	1/1	0.17	2.12	8,8,8,8	0
56	MG	EA	3053	1/1	0.18	2.08	1,1,1,1	0
56	MG	HA	1615	1/1	0.27	2.08	38,38,38,38	0
56	MG	GA	3045	1/1	0.17	2.06	7,7,7,7	0
56	MG	FA	1615	1/1	0.16	2.05	16,16,16,16	0
56	MG	CA	3016	1/1	0.17	2.03	8,8,8,8	0
56	MG	AA	3035	1/1	0.18	2.01	3,3,3,3	0
56	MG	CA	3066	1/1	0.17	2.00	2,2,2,2	0
56	MG	CA	3024	1/1	0.18	1.98	2,2,2,2	0
56	MG	CB	1201	1/1	0.13	1.87	41,41,41,41	0
56	MG	GA	3095	1/1	0.17	1.86	2,2,2,2	0
56	MG	AA	3036	1/1	0.24	1.85	25,25,25,25	0
56	MG	AA	3037	1/1	0.18	1.84	9,9,9,9	0
56	MG	CA	3086	1/1	0.19	1.83	20,20,20,20	0
56	MG	GA	3066	1/1	0.16	1.83	4,4,4,4	0
56	MG	CA	3049	1/1	0.17	1.82	9,9,9,9	0
56	MG	DA	1615	1/1	0.15	1.81	24,24,24,24	0
56	MG	CA	3111	1/1	0.16	1.76	13,13,13,13	0
56	MG	EA	3039	1/1	0.19	1.75	0,0,0,0	0
56	MG	AB	1202	1/1	0.23	1.74	44,44,44,44	0
56	MG	CA	3092	1/1	0.15	1.72	30,30,30,30	0
56	MG	EA	3002	1/1	0.17	1.72	4,4,4,4	0
56	MG	BA	1609	1/1	0.11	1.61	38,38,38,38	0
56	MG	CA	3003	1/1	0.14	1.59	12,12,12,12	0
56	MG	HA	1614	1/1	0.12	1.54	37,37,37,37	0
56	MG	HA	1633	1/1	0.15	1.54	52,52,52,52	0
56	MG	CA	3060	1/1	0.19	1.53	13,13,13,13	0
56	MG	AA	3019	1/1	0.16	1.52	33,33,33,33	0
56	MG	AA	3017	1/1	0.18	1.50	1,1,1,1	0
56	MG	AC	302	1/1	0.23	1.49	19,19,19,19	0
56	MG	AA	3068	1/1	0.20	1.46	59,59,59,59	0
56	MG	AA	3116	1/1	0.18	1.44	3,3,3,3	0
56	MG	EA	3040	1/1	0.17	1.44	1,1,1,1	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	1616	1/1	0.21	1.43	35,35,35,35	0
56	MG	EA	3091	1/1	0.13	1.41	11,11,11,11	0
56	MG	AA	3110	1/1	0.21	1.40	4,4,4,4	0
56	MG	AA	3125	1/1	0.16	1.39	23,23,23,23	0
56	MG	GL	201	1/1	0.24	1.39	7,7,7,7	0
56	MG	CA	3100	1/1	0.18	1.35	1,1,1,1	0
56	MG	CA	3103	1/1	0.17	1.35	0,0,0,0	0
56	MG	AA	3066	1/1	0.17	1.34	6,6,6,6	0
56	MG	GA	3104	1/1	0.19	1.31	6,6,6,6	0
56	MG	CA	3046	1/1	0.17	1.31	17,17,17,17	0
56	MG	FA	1620	1/1	0.16	1.30	6,6,6,6	0
56	MG	EA	3014	1/1	0.18	1.29	0,0,0,0	0
56	MG	EA	3103	1/1	0.20	1.28	10,10,10,10	0
56	MG	CA	3017	1/1	0.17	1.28	2,2,2,2	0
56	MG	EA	3130	1/1	0.23	1.24	29,29,29,29	0
56	MG	CA	3098	1/1	0.19	1.23	10,10,10,10	0
56	MG	GA	3082	1/1	0.14	1.22	35,35,35,35	0
56	MG	GB	1203	1/1	0.13	1.19	16,16,16,16	0
56	MG	GA	3098	1/1	0.14	1.19	25,25,25,25	0
56	MG	GA	3023	1/1	0.17	1.15	7,7,7,7	0
56	MG	AA	3124	1/1	0.16	1.15	9,9,9,9	0
56	MG	AA	3120	1/1	0.19	1.14	6,6,6,6	0
56	MG	CA	3106	1/1	0.17	1.13	13,13,13,13	0
56	MG	GA	3013	1/1	0.20	1.12	1,1,1,1	0
56	MG	AA	3106	1/1	0.18	1.12	9,9,9,9	0
56	MG	CA	3038	1/1	0.19	1.12	7,7,7,7	0
56	MG	CA	3034	1/1	0.19	1.11	18,18,18,18	0
56	MG	CA	3075	1/1	0.20	1.11	20,20,20,20	0
56	MG	EA	3003	1/1	0.13	1.10	6,6,6,6	0
56	MG	CA	3023	1/1	0.18	1.09	5,5,5,5	0
56	MG	GA	3105	1/1	0.16	1.08	3,3,3,3	0
56	MG	HA	1606	1/1	0.15	1.06	17,17,17,17	0
56	MG	EA	3024	1/1	0.18	1.03	0,0,0,0	0
56	MG	GA	3024	1/1	0.17	1.02	8,8,8,8	0
56	MG	DA	1637	1/1	0.13	1.01	23,23,23,23	0
56	MG	CA	3084	1/1	0.20	1.01	4,4,4,4	0
56	MG	GA	3001	1/1	0.16	1.00	32,32,32,32	0
56	MG	AA	3105	1/1	0.18	0.99	12,12,12,12	0
56	MG	CA	3090	1/1	0.14	0.99	20,20,20,20	0
56	MG	CA	3072	1/1	0.15	0.98	11,11,11,11	0
56	MG	EA	3074	1/1	0.17	0.95	4,4,4,4	0
56	MG	AA	3046	1/1	0.16	0.94	7,7,7,7	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3033	1/1	0.17	0.94	9,9,9,9	0
56	MG	GA	3027	1/1	0.16	0.93	6,6,6,6	0
56	MG	EA	3113	1/1	0.17	0.90	0,0,0,0	0
56	MG	AA	3108	1/1	0.15	0.90	21,21,21,21	0
56	MG	GA	3122	1/1	0.18	0.89	14,14,14,14	0
56	MG	EA	3111	1/1	0.20	0.89	2,2,2,2	0
56	MG	CA	3020	1/1	0.16	0.89	19,19,19,19	0
56	MG	GA	3002	1/1	0.15	0.86	14,14,14,14	0
56	MG	AA	3023	1/1	0.17	0.83	3,3,3,3	0
56	MG	CA	3105	1/1	0.17	0.81	6,6,6,6	0
56	MG	EA	3017	1/1	0.16	0.78	3,3,3,3	0
56	MG	ED	302	1/1	0.17	0.78	2,2,2,2	0
56	MG	EA	3109	1/1	0.16	0.78	8,8,8,8	0
56	MG	AA	3056	1/1	0.17	0.74	24,24,24,24	0
56	MG	AA	3025	1/1	0.17	0.73	8,8,8,8	0
56	MG	EA	3119	1/1	0.21	0.70	0,0,0,0	0
56	MG	EA	3008	1/1	0.18	0.69	1,1,1,1	0
56	MG	EA	3104	1/1	0.17	0.67	1,1,1,1	0
56	MG	AA	3073	1/1	0.16	0.67	8,8,8,8	0
56	MG	GA	3085	1/1	0.15	0.66	16,16,16,16	0
56	MG	AA	3103	1/1	0.16	0.65	10,10,10,10	0
56	MG	GA	3008	1/1	0.20	0.62	12,12,12,12	0
56	MG	BA	1626	1/1	0.15	0.58	36,36,36,36	0
56	MG	AT	201	1/1	0.19	0.57	36,36,36,36	0
56	MG	EA	3046	1/1	0.16	0.57	9,9,9,9	0
56	MG	AA	3049	1/1	0.16	0.55	3,3,3,3	0
56	MG	EA	3057	1/1	0.14	0.54	15,15,15,15	0
56	MG	CA	3115	1/1	0.14	0.50	12,12,12,12	0
56	MG	CA	3008	1/1	0.17	0.50	15,15,15,15	0
56	MG	GA	3018	1/1	0.28	0.50	36,36,36,36	0
56	MG	EA	3128	1/1	0.16	0.49	4,4,4,4	0
56	MG	GA	3050	1/1	0.14	0.48	9,9,9,9	0
56	MG	EA	3080	1/1	0.18	0.48	3,3,3,3	0
56	MG	EB	1203	1/1	0.13	0.47	3,3,3,3	0
56	MG	CA	3122	1/1	0.17	0.46	7,7,7,7	0
56	MG	HA	1609	1/1	0.11	0.46	29,29,29,29	0
56	MG	EA	3018	1/1	0.15	0.45	8,8,8,8	0
56	MG	AA	3044	1/1	0.14	0.43	17,17,17,17	0
56	MG	AA	3024	1/1	0.17	0.43	20,20,20,20	0
56	MG	FA	1632	1/1	0.13	0.43	28,28,28,28	0
56	MG	EA	3092	1/1	0.14	0.43	7,7,7,7	0
56	MG	HA	1627	1/1	0.13	0.42	24,24,24,24	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3068	1/1	0.14	0.42	13,13,13,13	0
56	MG	EA	3028	1/1	0.17	0.42	1,1,1,1	0
56	MG	GA	3065	1/1	0.14	0.42	3,3,3,3	0
56	MG	HA	1608	1/1	0.16	0.41	14,14,14,14	0
56	MG	CA	3089	1/1	0.14	0.41	2,2,2,2	0
56	MG	GA	3049	1/1	0.16	0.41	8,8,8,8	0
56	MG	CA	3009	1/1	0.14	0.39	18,18,18,18	0
56	MG	CA	3054	1/1	0.16	0.38	6,6,6,6	0
56	MG	EA	3051	1/1	0.15	0.37	0,0,0,0	0
56	MG	EA	3081	1/1	0.15	0.37	3,3,3,3	0
56	MG	DA	1609	1/1	0.16	0.37	16,16,16,16	0
56	MG	EA	3068	1/1	0.15	0.35	35,35,35,35	0
56	MG	CD	301	1/1	0.18	0.34	3,3,3,3	0
56	MG	FA	1626	1/1	0.15	0.33	15,15,15,15	0
56	MG	DA	1632	1/1	0.16	0.32	28,28,28,28	0
56	MG	CA	3093	1/1	0.13	0.31	25,25,25,25	0
56	MG	DA	1605	1/1	0.14	0.28	28,28,28,28	0
56	MG	CA	3002	1/1	0.13	0.23	17,17,17,17	0
56	MG	GA	3025	1/1	0.14	0.21	18,18,18,18	0
56	MG	CA	3044	1/1	0.15	0.21	22,22,22,22	0
56	MG	GA	3022	1/1	0.17	0.19	16,16,16,16	0
56	MG	AA	3130	1/1	0.16	0.15	27,27,27,27	0
56	MG	EA	3012	1/1	0.17	0.15	1,1,1,1	0
56	MG	EA	3112	1/1	0.14	0.13	5,5,5,5	0
56	MG	FA	1641	1/1	0.15	0.12	18,18,18,18	0
56	MG	AA	3081	1/1	0.13	0.10	16,16,16,16	0
56	MG	GA	3076	1/1	0.15	0.09	23,23,23,23	0
56	MG	EA	3077	1/1	0.12	0.08	14,14,14,14	0
56	MG	DA	1601	1/1	0.13	0.06	37,37,37,37	0
56	MG	AA	3012	1/1	0.19	0.06	7,7,7,7	0
56	MG	EA	3106	1/1	0.16	0.05	0,0,0,0	0
56	MG	HA	1635	1/1	0.14	0.03	17,17,17,17	0
56	MG	AA	3011	1/1	0.18	0.03	18,18,18,18	0
56	MG	EA	3066	1/1	0.17	0.02	0,0,0,0	0
56	MG	BA	1601	1/1	0.13	0.02	33,33,33,33	0
56	MG	BA	1636	1/1	0.14	0.02	40,40,40,40	0
56	MG	AA	3065	1/1	0.15	0.01	2,2,2,2	0
56	MG	CA	3125	1/1	0.14	0.01	9,9,9,9	0
56	MG	AA	3072	1/1	0.16	0.01	7,7,7,7	0
56	MG	AA	3043	1/1	0.14	0.00	21,21,21,21	0
56	MG	CA	3041	1/1	0.13	-0.01	13,13,13,13	0
56	MG	DA	1634	1/1	0.13	-0.04	33,33,33,33	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3058	1/1	0.18	-0.04	9,9,9,9	0
56	MG	AA	3119	1/1	0.15	-0.04	13,13,13,13	0
56	MG	GA	3124	1/1	0.12	-0.06	16,16,16,16	0
56	MG	AA	3039	1/1	0.17	-0.06	5,5,5,5	0
56	MG	EA	3023	1/1	0.16	-0.07	2,2,2,2	0
56	MG	AA	3101	1/1	0.16	-0.07	7,7,7,7	0
56	MG	AD	301	1/1	0.15	-0.08	6,6,6,6	0
56	MG	EA	3062	1/1	0.17	-0.08	0,0,0,0	0
56	MG	CA	3112	1/1	0.14	-0.09	4,4,4,4	0
56	MG	AA	3045	1/1	0.14	-0.09	18,18,18,18	0
56	MG	DU	101	1/1	0.39	-0.10	36,36,36,36	0
56	MG	HA	1628	1/1	0.14	-0.11	30,30,30,30	0
56	MG	AA	3069	1/1	0.14	-0.11	6,6,6,6	0
58	GCP	DV	801	32/32	0.14	-0.12	20,38,49,52	0
56	MG	GA	3026	1/1	0.14	-0.13	6,6,6,6	0
56	MG	CA	3032	1/1	0.16	-0.16	3,3,3,3	0
56	MG	DA	1608	1/1	0.14	-0.18	14,14,14,14	0
56	MG	BA	1617	1/1	0.14	-0.18	25,25,25,25	0
56	MG	EA	3096	1/1	0.15	-0.18	15,15,15,15	0
56	MG	CA	3129	1/1	0.15	-0.20	9,9,9,9	0
56	MG	CA	3109	1/1	0.12	-0.21	26,26,26,26	0
56	MG	HA	1623	1/1	0.12	-0.21	18,18,18,18	0
56	MG	AA	3074	1/1	0.17	-0.24	9,9,9,9	0
56	MG	CA	3063	1/1	0.15	-0.25	2,2,2,2	0
56	MG	GA	3071	1/1	0.15	-0.26	20,20,20,20	0
56	MG	EA	3098	1/1	0.15	-0.28	6,6,6,6	0
56	MG	GA	3003	1/1	0.12	-0.28	15,15,15,15	0
58	GCP	BV	801	32/32	0.13	-0.29	17,36,43,49	0
56	MG	EA	3095	1/1	0.16	-0.30	5,5,5,5	0
56	MG	EA	3029	1/1	0.17	-0.30	0,0,0,0	0
56	MG	EA	3072	1/1	0.14	-0.31	8,8,8,8	0
56	MG	HA	1619	1/1	0.15	-0.33	34,34,34,34	0
56	MG	CA	3134	1/1	0.16	-0.33	23,23,23,23	0
56	MG	BA	1621	1/1	0.25	-0.33	52,52,52,52	0
56	MG	HA	1605	1/1	0.12	-0.34	39,39,39,39	0
56	MG	AA	3032	1/1	0.15	-0.34	14,14,14,14	0
56	MG	EB	1201	1/1	0.12	-0.35	26,26,26,26	0
56	MG	GC	301	1/1	0.15	-0.35	4,4,4,4	0
56	MG	DA	1624	1/1	0.16	-0.36	48,48,48,48	0
56	MG	AA	3013	1/1	0.15	-0.38	5,5,5,5	0
56	MG	DV	802	1/1	0.12	-0.38	34,34,34,34	0
56	MG	GA	3012	1/1	0.17	-0.39	2,2,2,2	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
58	GCP	FV	801	32/32	0.19	-0.40	43,58,69,87	0
56	MG	CA	3078	1/1	0.11	-0.41	25,25,25,25	0
56	MG	AA	3030	1/1	0.16	-0.43	13,13,13,13	0
56	MG	AA	3031	1/1	0.15	-0.44	8,8,8,8	0
56	MG	EA	3036	1/1	0.14	-0.45	1,1,1,1	0
56	MG	DA	1639	1/1	0.11	-0.46	40,40,40,40	0
56	MG	AA	3080	1/1	0.17	-0.47	7,7,7,7	0
56	MG	AA	3014	1/1	0.16	-0.48	4,4,4,4	0
56	MG	AA	3047	1/1	0.12	-0.48	30,30,30,30	0
56	MG	GA	3096	1/1	0.15	-0.48	4,4,4,4	0
56	MG	CA	3130	1/1	0.15	-0.51	1,1,1,1	0
56	MG	HV	802	1/1	0.15	-0.53	38,38,38,38	0
56	MG	AB	1203	1/1	0.11	-0.53	14,14,14,14	0
56	MG	DA	1619	1/1	0.12	-0.53	33,33,33,33	0
56	MG	CA	3124	1/1	0.15	-0.54	0,0,0,0	0
56	MG	BU	101	1/1	0.27	-0.55	39,39,39,39	0
56	MG	GA	3016	1/1	0.14	-0.55	9,9,9,9	0
56	MG	BA	1629	1/1	0.15	-0.55	41,41,41,41	0
56	MG	AA	3015	1/1	0.16	-0.56	22,22,22,22	0
56	MG	FA	1601	1/1	0.13	-0.57	28,28,28,28	0
56	MG	CA	3132	1/1	0.15	-0.57	2,2,2,2	0
56	MG	EA	3022	1/1	0.14	-0.62	0,0,0,0	0
56	MG	DA	1642	1/1	0.17	-0.62	29,29,29,29	0
56	MG	BA	1630	1/1	0.11	-0.67	25,25,25,25	0
56	MG	HE	201	1/1	0.24	-0.67	39,39,39,39	0
56	MG	GA	3038	1/1	0.14	-0.70	11,11,11,11	0
56	MG	HA	1638	1/1	0.12	-0.72	26,26,26,26	0
56	MG	GA	3121	1/1	0.15	-0.72	4,4,4,4	0
56	MG	CA	3050	1/1	0.12	-0.73	12,12,12,12	0
56	MG	AA	3096	1/1	0.15	-0.73	33,33,33,33	0
56	MG	HA	1617	1/1	0.18	-0.75	62,62,62,62	0
56	MG	CA	3047	1/1	0.12	-0.75	31,31,31,31	0
56	MG	CA	3070	1/1	0.12	-0.75	4,4,4,4	0
56	MG	AB	1201	1/1	0.10	-0.76	38,38,38,38	0
56	MG	GA	3006	1/1	0.12	-0.77	25,25,25,25	0
56	MG	EB	1202	1/1	0.11	-0.77	19,19,19,19	0
56	MG	CA	3018	1/1	0.10	-0.78	26,26,26,26	0
56	MG	AA	3070	1/1	0.15	-0.78	11,11,11,11	0
56	MG	EC	301	1/1	0.14	-0.78	1,1,1,1	0
56	MG	BA	1640	1/1	0.13	-0.79	33,33,33,33	0
56	MG	CB	1203	1/1	0.11	-0.79	6,6,6,6	0
56	MG	CA	3128	1/1	0.15	-0.80	6,6,6,6	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	EA	3006	1/1	0.12	-0.87	19,19,19,19	0
56	MG	CA	3069	1/1	0.09	-0.87	45,45,45,45	0
56	MG	GA	3054	1/1	0.13	-0.88	1,1,1,1	0
56	MG	GA	3119	1/1	0.14	-0.90	5,5,5,5	0
56	MG	EA	3105	1/1	0.14	-0.91	4,4,4,4	0
56	MG	FA	1629	1/1	0.13	-0.94	16,16,16,16	0
56	MG	AA	3067	1/1	0.08	-0.96	29,29,29,29	0
56	MG	CA	3059	1/1	0.16	-0.96	3,3,3,3	0
57	ZN	C4	102	1/1	0.08	-0.96	76,76,76,76	0
56	MG	EA	3097	1/1	0.16	-0.97	2,2,2,2	0
56	MG	FV	802	1/1	0.13	-1.00	48,48,48,48	0
56	MG	HA	1629	1/1	0.12	-1.01	17,17,17,17	0
56	MG	CA	3035	1/1	0.14	-1.04	3,3,3,3	0
56	MG	EA	3047	1/1	0.10	-1.04	6,6,6,6	0
56	MG	GA	3036	1/1	0.12	-1.04	35,35,35,35	0
56	MG	HA	1637	1/1	0.10	-1.04	47,47,47,47	0
57	ZN	A4	101	1/1	0.08	-1.04	63,63,63,63	0
56	MG	AA	3127	1/1	0.12	-1.05	16,16,16,16	0
56	MG	BA	1604	1/1	0.12	-1.05	20,20,20,20	0
56	MG	EA	3100	1/1	0.14	-1.05	0,0,0,0	0
56	MG	AA	3008	1/1	0.12	-1.07	15,15,15,15	0
56	MG	FA	1631	1/1	0.07	-1.07	21,21,21,21	0
56	MG	DA	1622	1/1	0.08	-1.08	37,37,37,37	0
56	MG	FA	1635	1/1	0.12	-1.09	8,8,8,8	0
56	MG	GA	3074	1/1	0.14	-1.09	2,2,2,2	0
56	MG	CA	3099	1/1	0.12	-1.11	17,17,17,17	0
56	MG	CB	1202	1/1	0.10	-1.14	55,55,55,55	0
56	MG	BA	1634	1/1	0.12	-1.14	14,14,14,14	0
58	GCP	HV	801	32/32	0.12	-1.14	24,48,54,56	0
56	MG	EA	3048	1/1	0.12	-1.15	11,11,11,11	0
56	MG	DA	1617	1/1	0.14	-1.16	45,45,45,45	0
56	MG	FU	101	1/1	0.14	-1.16	24,24,24,24	0
56	MG	GA	3077	1/1	0.12	-1.17	33,33,33,33	0
56	MG	AA	3071	1/1	0.12	-1.17	3,3,3,3	0
56	MG	EA	3033	1/1	0.16	-1.17	1,1,1,1	0
56	MG	AA	3097	1/1	0.16	-1.20	8,8,8,8	0
56	MG	CA	3113	1/1	0.11	-1.20	14,14,14,14	0
56	MG	CA	3045	1/1	0.13	-1.21	21,21,21,21	0
56	MG	EA	3070	1/1	0.14	-1.21	3,3,3,3	0
56	MG	EA	3035	1/1	0.14	-1.22	0,0,0,0	0
56	MG	CA	3083	1/1	0.11	-1.22	22,22,22,22	0
56	MG	EA	3044	1/1	0.13	-1.23	11,11,11,11	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	FA	1633	1/1	0.11	-1.23	28,28,28,28	0
56	MG	GA	3099	1/1	0.14	-1.25	12,12,12,12	0
56	MG	CA	3120	1/1	0.14	-1.30	3,3,3,3	0
56	MG	GA	3089	1/1	0.10	-1.31	14,14,14,14	0
56	MG	BA	1623	1/1	0.10	-1.31	24,24,24,24	0
56	MG	HA	1616	1/1	0.14	-1.34	33,33,33,33	0
56	MG	AE	301	1/1	0.12	-1.36	11,11,11,11	0
56	MG	GA	3107	1/1	0.13	-1.39	27,27,27,27	0
56	MG	GA	3053	1/1	0.13	-1.40	4,4,4,4	0
56	MG	GA	3116	1/1	0.13	-1.40	3,3,3,3	0
56	MG	AA	3087	1/1	0.13	-1.41	31,31,31,31	0
57	ZN	G4	101	1/1	0.09	-1.43	69,69,69,69	0
56	MG	GA	3069	1/1	0.12	-1.43	63,63,63,63	0
56	MG	BA	1602	1/1	0.12	-1.44	15,15,15,15	0
56	MG	BA	1603	1/1	0.08	-1.45	21,21,21,21	0
56	MG	CA	3027	1/1	0.09	-1.46	2,2,2,2	0
56	MG	AA	3111	1/1	0.15	-1.46	21,21,21,21	0
56	MG	CA	3042	1/1	0.11	-1.46	8,8,8,8	0
56	MG	CA	3116	1/1	0.12	-1.48	13,13,13,13	0
56	MG	AA	3079	1/1	0.15	-1.49	11,11,11,11	0
56	MG	CA	3056	1/1	0.11	-1.49	7,7,7,7	0
56	MG	EA	3115	1/1	0.12	-1.50	2,2,2,2	0
56	MG	EA	3124	1/1	0.11	-1.51	5,5,5,5	0
56	MG	AA	3128	1/1	0.13	-1.52	2,2,2,2	0
56	MG	EA	3071	1/1	0.12	-1.54	2,2,2,2	0
56	MG	FA	1617	1/1	0.13	-1.57	9,9,9,9	0
56	MG	FA	1606	1/1	0.10	-1.58	13,13,13,13	0
56	MG	AA	3061	1/1	0.14	-1.58	6,6,6,6	0
56	MG	AA	3100	1/1	0.10	-1.60	6,6,6,6	0
56	MG	BA	1613	1/1	0.13	-1.63	38,38,38,38	0
56	MG	CA	3021	1/1	0.13	-1.64	10,10,10,10	0
56	MG	AA	3076	1/1	0.10	-1.65	21,21,21,21	0
56	MG	EA	3101	1/1	0.10	-1.66	26,26,26,26	0
56	MG	AA	3051	1/1	0.08	-1.68	4,4,4,4	0
56	MG	EA	3045	1/1	0.14	-1.68	1,1,1,1	0
56	MG	AA	3090	1/1	0.10	-1.68	23,23,23,23	0
56	MG	DA	1606	1/1	0.10	-1.71	26,26,26,26	0
56	MG	EA	3005	1/1	0.11	-1.71	27,27,27,27	0
56	MG	AA	3113	1/1	0.11	-1.71	8,8,8,8	0
56	MG	CA	3001	1/1	0.12	-1.72	10,10,10,10	0
56	MG	EA	3084	1/1	0.16	-1.72	2,2,2,2	0
56	MG	CA	3064	1/1	0.09	-1.73	1,1,1,1	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3088	1/1	0.12	-1.75	14,14,14,14	0
56	MG	CA	3015	1/1	0.14	-1.76	14,14,14,14	0
56	MG	DA	1641	1/1	0.12	-1.78	30,30,30,30	0
56	MG	BE	201	1/1	0.10	-1.79	43,43,43,43	0
56	MG	CA	3006	1/1	0.08	-1.80	15,15,15,15	0
56	MG	FA	1638	1/1	0.10	-1.82	33,33,33,33	0
56	MG	A3	101	1/1	0.09	-1.82	13,13,13,13	0
56	MG	CA	3108	1/1	0.13	-1.82	3,3,3,3	0
56	MG	FA	1637	1/1	0.11	-1.83	34,34,34,34	0
56	MG	AA	3112	1/1	0.09	-1.83	7,7,7,7	0
56	MG	EA	3116	1/1	0.14	-1.88	0,0,0,0	0
57	ZN	E4	101	1/1	0.09	-1.90	54,54,54,54	0
56	MG	CA	3133	1/1	0.11	-1.91	13,13,13,13	0
56	MG	AA	3001	1/1	0.10	-1.92	11,11,11,11	0
56	MG	AA	3064	1/1	0.13	-1.92	20,20,20,20	0
56	MG	FA	1613	1/1	0.11	-1.98	9,9,9,9	0
56	MG	GA	3132	1/1	0.12	-1.98	7,7,7,7	0
56	MG	AA	3004	1/1	0.10	-1.98	34,34,34,34	0
56	MG	EA	3058	1/1	0.12	-1.98	6,6,6,6	0
56	MG	AA	3126	1/1	0.09	-1.99	3,3,3,3	0
56	MG	BA	1627	1/1	0.07	-2.02	25,25,25,25	0
56	MG	GA	3056	1/1	0.11	-2.04	4,4,4,4	0
56	MG	CA	3080	1/1	0.13	-2.06	8,8,8,8	0
56	MG	CA	3019	1/1	0.08	-2.06	22,22,22,22	0
56	MG	GA	3097	1/1	0.16	-2.07	26,26,26,26	0
56	MG	GA	3075	1/1	0.13	-2.08	7,7,7,7	0
56	MG	CA	3062	1/1	0.13	-2.10	5,5,5,5	0
56	MG	BA	1605	1/1	0.11	-2.11	21,21,21,21	0
56	MG	AA	3027	1/1	0.13	-2.13	8,8,8,8	0
56	MG	AA	3016	1/1	0.11	-2.14	10,10,10,10	0
56	MG	EA	3076	1/1	0.09	-2.15	18,18,18,18	0
56	MG	CA	3131	1/1	0.10	-2.16	0,0,0,0	0
56	MG	AA	3021	1/1	0.09	-2.16	11,11,11,11	0
56	MG	AA	3006	1/1	0.08	-2.17	38,38,38,38	0
56	MG	GA	3130	1/1	0.09	-2.19	9,9,9,9	0
56	MG	GA	3064	1/1	0.11	-2.21	9,9,9,9	0
56	MG	FA	1618	1/1	0.10	-2.21	28,28,28,28	0
56	MG	DA	1604	1/1	0.09	-2.23	23,23,23,23	0
56	MG	EA	3001	1/1	0.11	-2.28	9,9,9,9	0
56	MG	BA	1632	1/1	0.10	-2.29	40,40,40,40	0
56	MG	EA	3059	1/1	0.12	-2.29	1,1,1,1	0
56	MG	FA	1616	1/1	0.15	-2.33	16,16,16,16	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	GA	3112	1/1	0.10	-2.34	15,15,15,15	0
56	MG	AA	3048	1/1	0.13	-2.37	2,2,2,2	0
56	MG	AA	3085	1/1	0.08	-2.39	30,30,30,30	0
56	MG	EA	3037	1/1	0.12	-2.41	2,2,2,2	0
56	MG	CA	3031	1/1	0.13	-2.41	11,11,11,11	0
56	MG	GA	3057	1/1	0.09	-2.42	22,22,22,22	0
56	MG	EA	3010	1/1	0.15	-2.43	11,11,11,11	0
56	MG	GA	3055	1/1	0.11	-2.43	12,12,12,12	0
56	MG	AA	3121	1/1	0.08	-2.44	20,20,20,20	0
56	MG	EA	3016	1/1	0.10	-2.45	6,6,6,6	0
56	MG	BA	1611	1/1	0.12	-2.45	15,15,15,15	0
56	MG	CA	3071	1/1	0.14	-2.46	2,2,2,2	0
56	MG	FA	1602	1/1	0.10	-2.46	23,23,23,23	0
56	MG	BA	1628	1/1	0.13	-2.47	26,26,26,26	0
56	MG	CA	3067	1/1	0.11	-2.49	4,4,4,4	0
56	MG	CA	3004	1/1	0.09	-2.53	6,6,6,6	0
56	MG	GA	3035	1/1	0.11	-2.58	15,15,15,15	0
56	MG	CB	1204	1/1	0.06	-2.60	16,16,16,16	0
56	MG	GA	3062	1/1	0.12	-2.62	18,18,18,18	0
56	MG	HA	1640	1/1	0.10	-2.62	15,15,15,15	0
56	MG	CA	3043	1/1	0.11	-2.62	5,5,5,5	0
56	MG	CA	3058	1/1	0.11	-2.69	5,5,5,5	0
56	MG	AB	1204	1/1	0.07	-2.70	8,8,8,8	0
56	MG	EA	3054	1/1	0.12	-2.72	5,5,5,5	0
56	MG	AA	3020	1/1	0.13	-2.73	24,24,24,24	0
56	MG	CA	3104	1/1	0.14	-2.73	4,4,4,4	0
56	MG	DA	1607	1/1	0.14	-2.75	16,16,16,16	0
56	MG	AA	3022	1/1	0.10	-2.81	8,8,8,8	0
56	MG	DA	1635	1/1	0.07	-2.86	38,38,38,38	0
56	MG	AA	3129	1/1	0.10	-2.91	20,20,20,20	0
56	MG	AA	3104	1/1	0.12	-2.94	12,12,12,12	0
56	MG	FA	1630	1/1	0.09	-2.94	16,16,16,16	0
56	MG	CA	3101	1/1	0.14	-2.96	10,10,10,10	0
56	MG	EA	3021	1/1	0.10	-2.96	5,5,5,5	0
56	MG	CA	3110	1/1	0.10	-2.96	20,20,20,20	0
56	MG	FA	1604	1/1	0.06	-2.97	33,33,33,33	0
56	MG	GA	3079	1/1	0.10	-2.97	18,18,18,18	0
56	MG	AA	3122	1/1	0.12	-3.00	2,2,2,2	0
56	MG	GA	3028	1/1	0.11	-3.07	10,10,10,10	0
56	MG	CA	3014	1/1	0.11	-3.08	9,9,9,9	0
56	MG	GA	3043	1/1	0.10	-3.08	8,8,8,8	0
56	MG	EA	3056	1/1	0.08	-3.09	2,2,2,2	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3102	1/1	0.07	-3.09	32,32,32,32	0
56	MG	EA	3090	1/1	0.07	-3.12	29,29,29,29	0
56	MG	FA	1607	1/1	0.10	-3.15	18,18,18,18	0
56	MG	CA	3082	1/1	0.12	-3.16	15,15,15,15	0
56	MG	C4	101	1/1	0.06	-3.19	22,22,22,22	0
56	MG	BA	1620	1/1	0.05	-3.19	20,20,20,20	0
56	MG	AA	3038	1/1	0.12	-3.19	6,6,6,6	0
56	MG	GA	3021	1/1	0.13	-3.19	9,9,9,9	0
56	MG	GA	3117	1/1	0.07	-3.21	22,22,22,22	0
56	MG	CA	3022	1/1	0.13	-3.27	0,0,0,0	0
56	MG	AA	3034	1/1	0.11	-3.28	14,14,14,14	0
56	MG	GA	3046	1/1	0.08	-3.29	35,35,35,35	0
56	MG	BA	1639	1/1	0.11	-3.32	19,19,19,19	0
56	MG	EA	3065	1/1	0.10	-3.32	0,0,0,0	0
56	MG	EA	3063	1/1	0.13	-3.34	1,1,1,1	0
56	MG	CA	3088	1/1	0.10	-3.41	28,28,28,28	0
56	MG	AA	3086	1/1	0.07	-3.42	35,35,35,35	0
56	MG	EA	3094	1/1	0.10	-3.44	15,15,15,15	0
56	MG	CA	3061	1/1	0.11	-3.45	3,3,3,3	0
56	MG	DA	1603	1/1	0.12	-3.48	22,22,22,22	0
56	MG	EA	3082	1/1	0.07	-3.48	13,13,13,13	0
56	MG	AA	3040	1/1	0.11	-3.49	24,24,24,24	0
56	MG	HA	1631	1/1	0.10	-3.52	28,28,28,28	0
56	MG	DA	1611	1/1	0.10	-3.52	15,15,15,15	0
56	MG	GA	3090	1/1	0.05	-3.54	26,26,26,26	0
56	MG	AA	3099	1/1	0.12	-3.58	15,15,15,15	0
56	MG	DA	1630	1/1	0.11	-3.61	34,34,34,34	0
56	MG	GA	3101	1/1	0.07	-3.63	15,15,15,15	0
56	MG	HA	1622	1/1	0.09	-3.64	36,36,36,36	0
56	MG	EA	3089	1/1	0.09	-3.66	5,5,5,5	0
56	MG	EA	3013	1/1	0.13	-3.69	0,0,0,0	0
56	MG	GA	3032	1/1	0.12	-3.69	8,8,8,8	0
56	MG	AA	3095	1/1	0.09	-3.71	9,9,9,9	0
56	MG	DA	1614	1/1	0.11	-3.74	44,44,44,44	0
56	MG	HA	1634	1/1	0.11	-3.74	24,24,24,24	0
56	MG	CA	3095	1/1	0.10	-3.79	21,21,21,21	0
56	MG	EA	3117	1/1	0.10	-3.83	11,11,11,11	0
56	MG	AA	3003	1/1	0.10	-3.83	26,26,26,26	0
56	MG	AA	3118	1/1	0.10	-3.83	11,11,11,11	0
56	MG	CA	3036	1/1	0.08	-3.90	19,19,19,19	0
56	MG	AA	3063	1/1	0.07	-3.92	9,9,9,9	0
56	MG	DA	1613	1/1	0.09	-3.93	12,12,12,12	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3012	1/1	0.11	-4.04	3,3,3,3	0
56	MG	CA	3094	1/1	0.07	-4.05	34,34,34,34	0
56	MG	CA	3126	1/1	0.11	-4.08	7,7,7,7	0
56	MG	GA	3128	1/1	0.09	-4.09	20,20,20,20	0
56	MG	EA	3038	1/1	0.10	-4.12	2,2,2,2	0
56	MG	BA	1633	1/1	0.09	-4.13	35,35,35,35	0
56	MG	EA	3086	1/1	0.07	-4.14	34,34,34,34	0
56	MG	AA	3053	1/1	0.10	-4.18	6,6,6,6	0
56	MG	EA	3133	1/1	0.11	-4.24	32,32,32,32	0
56	MG	EA	3004	1/1	0.09	-4.26	13,13,13,13	0
56	MG	EA	3019	1/1	0.07	-4.26	13,13,13,13	0
56	MG	DA	1610	1/1	0.04	-4.26	48,48,48,48	0
56	MG	FA	1614	1/1	0.11	-4.32	5,5,5,5	0
56	MG	HA	1624	1/1	0.09	-4.33	14,14,14,14	0
56	MG	AA	3002	1/1	0.09	-4.37	20,20,20,20	0
56	MG	GB	1201	1/1	0.07	-4.41	38,38,38,38	0
56	MG	EA	3083	1/1	0.12	-4.42	1,1,1,1	0
56	MG	EA	3093	1/1	0.07	-4.46	21,21,21,21	0
56	MG	AA	3092	1/1	0.05	-4.56	31,31,31,31	0
56	MG	GA	3113	1/1	0.09	-4.58	26,26,26,26	0
56	MG	DA	1633	1/1	0.04	-4.60	45,45,45,45	0
56	MG	CA	3055	1/1	0.11	-4.75	20,20,20,20	0
56	MG	DA	1626	1/1	0.06	-4.77	24,24,24,24	0
56	MG	CA	3057	1/1	0.09	-4.84	1,1,1,1	0
56	MG	GA	3109	1/1	0.06	-4.92	9,9,9,9	0
56	MG	AA	3077	1/1	0.07	-4.94	36,36,36,36	0
56	MG	AA	3057	1/1	0.07	-4.97	18,18,18,18	0
56	MG	GA	3031	1/1	0.12	-4.99	4,4,4,4	0
56	MG	AA	3089	1/1	0.08	-5.00	26,26,26,26	0
56	MG	EA	3032	1/1	0.13	-5.08	0,0,0,0	0
56	MG	CA	3081	1/1	0.12	-5.08	10,10,10,10	0
56	MG	GA	3041	1/1	0.08	-5.14	10,10,10,10	0
56	MG	DA	1627	1/1	0.10	-5.17	21,21,21,21	0
56	MG	CA	3065	1/1	0.09	-5.17	1,1,1,1	0
56	MG	GB	1204	1/1	0.08	-5.17	21,21,21,21	0
56	MG	BA	1608	1/1	0.10	-5.20	22,22,22,22	0
56	MG	BA	1610	1/1	0.07	-5.25	19,19,19,19	0
56	MG	FA	1603	1/1	0.12	-5.33	30,30,30,30	0
56	MG	AA	3082	1/1	0.03	-5.36	29,29,29,29	0
56	MG	EA	3026	1/1	0.09	-5.45	28,28,28,28	0
56	MG	CA	3048	1/1	0.09	-5.55	13,13,13,13	0
56	MG	GA	3127	1/1	0.11	-5.58	1,1,1,1	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	1638	1/1	0.05	-5.61	40,40,40,40	0
56	MG	FA	1619	1/1	0.09	-5.68	25,25,25,25	0
56	MG	DA	1625	1/1	0.09	-5.70	23,23,23,23	0
56	MG	FA	1625	1/1	0.06	-5.72	18,18,18,18	0
56	MG	GA	3007	1/1	0.06	-5.78	28,28,28,28	0
56	MG	GA	3015	1/1	0.07	-5.80	18,18,18,18	0
56	MG	CA	3087	1/1	0.04	-5.87	29,29,29,29	0
56	MG	GA	3134	1/1	0.05	-6.00	16,16,16,16	0
56	MG	GA	3126	1/1	0.09	-6.14	18,18,18,18	0
56	MG	GA	3125	1/1	0.09	-6.28	5,5,5,5	0
56	MG	EB	1204	1/1	0.05	-6.31	12,12,12,12	0
56	MG	BA	1631	1/1	0.06	-6.35	28,28,28,28	0
56	MG	CA	3029	1/1	0.07	-6.36	8,8,8,8	0
56	MG	CA	3127	1/1	0.07	-6.55	11,11,11,11	0
56	MG	AA	3052	1/1	0.11	-6.76	2,2,2,2	0
56	MG	EA	3075	1/1	0.11	-6.88	10,10,10,10	0
56	MG	CA	3025	1/1	0.10	-7.26	7,7,7,7	0
56	MG	AA	3050	1/1	0.07	-7.31	7,7,7,7	0
56	MG	GA	3092	1/1	0.06	-7.32	17,17,17,17	0
56	MG	CA	3026	1/1	0.10	-7.43	5,5,5,5	0
56	MG	GA	3058	1/1	0.11	-7.48	17,17,17,17	0
56	MG	FA	1622	1/1	0.07	-7.51	15,15,15,15	0
56	MG	EA	3041	1/1	0.09	-7.54	2,2,2,2	0
56	MG	DA	1623	1/1	0.05	-7.60	12,12,12,12	0
56	MG	HA	1636	1/1	0.04	-7.80	21,21,21,21	0
56	MG	EA	3007	1/1	0.06	-7.83	15,15,15,15	0
56	MG	FA	1634	1/1	0.06	-8.06	19,19,19,19	0
56	MG	GA	3011	1/1	0.09	-8.19	46,46,46,46	0
56	MG	DA	1620	1/1	0.06	-8.41	22,22,22,22	0
56	MG	CA	3076	1/1	0.08	-8.70	25,25,25,25	0
56	MG	EA	3125	1/1	0.09	-8.75	3,3,3,3	0
56	MG	AA	3114	1/1	0.07	-8.82	1,1,1,1	0
56	MG	AA	3054	1/1	0.12	-9.15	11,11,11,11	0
56	MG	CA	3117	1/1	0.06	-9.17	7,7,7,7	0
56	MG	AA	3026	1/1	0.07	-9.30	10,10,10,10	0
56	MG	EA	3110	1/1	0.10	-10.11	24,24,24,24	0
56	MG	EA	3127	1/1	0.14	-10.25	0,0,0,0	0
56	MG	CA	3053	1/1	0.11	-10.92	5,5,5,5	0
56	MG	GA	3017	1/1	0.09	-10.96	24,24,24,24	0
56	MG	GA	3086	1/1	0.03	-11.00	26,26,26,26	0
56	MG	EA	3043	1/1	0.10	-11.40	4,4,4,4	0
56	MG	DA	1618	1/1	0.08	-11.72	33,33,33,33	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3075	1/1	0.08	-12.38	15,15,15,15	0
56	MG	GA	3019	1/1	0.10	-14.50	5,5,5,5	0
56	MG	CA	3013	1/1	0.08	-15.53	7,7,7,7	0
56	MG	AA	3029	1/1	0.09	-16.00	21,21,21,21	0
56	MG	CA	3052	1/1	0.08	-19.11	10,10,10,10	0
56	MG	CA	3074	1/1	0.05	-20.41	19,19,19,19	0
56	MG	AA	3094	1/1	0.06	-22.94	20,20,20,20	0
56	MG	HA	1618	1/1	0.07	-39.55	19,19,19,19	0
56	MG	BA	1624	1/1	0.10	-45.00	28,28,28,28	0
56	MG	CA	3007	1/1	0.08	-51.44	15,15,15,15	0
56	MG	EA	3030	1/1	0.15	-	0,0,0,0	0
56	MG	HC	401	1/1	0.45	-	49,49,49,49	0
56	MG	GA	3093	1/1	0.46	-	28,28,28,28	0
56	MG	BL	201	1/1	0.27	-	51,51,51,51	0
56	MG	HA	1620	1/1	0.08	-	14,14,14,14	0

6.5 Other polymers ⓘ

There are no such residues in this entry.